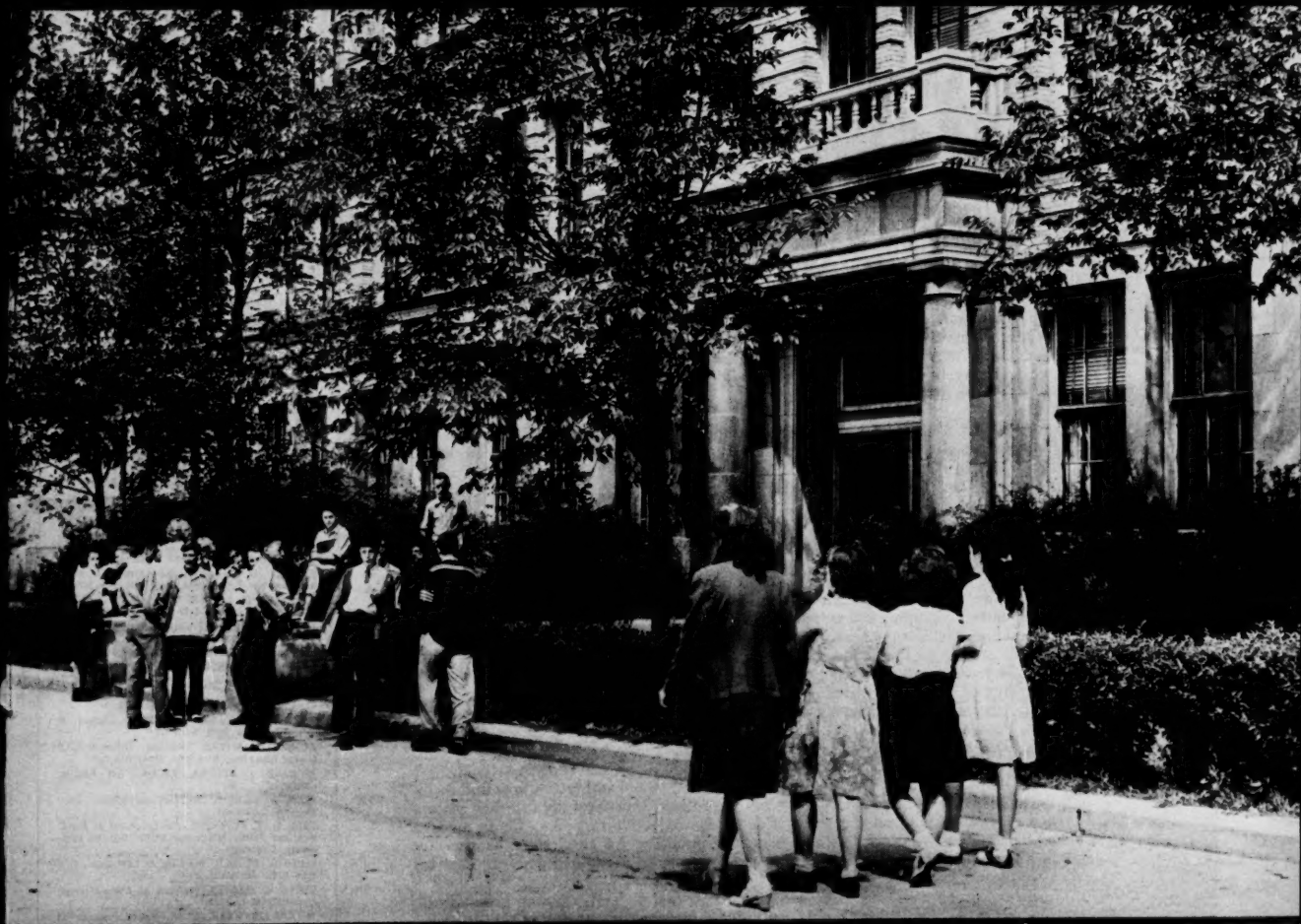


SCHOOL MANAGEMENT



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PLANNING SCHOOLS FOR TODAY AND TOMORROW

There is no magic formula. Study, questions, research,
and vast committee work precede the actual blueprints



Mr. Oberholtzer is superintendent of the Denver schools, and president of the AASA

By **KENNETH E. OBERHOLTZER**
Guest Editorial Commentator

IF all communities were alike, an easy formula might be developed to determine future school needs. But they are not. Metropolis or whistle stop—they not only differ from each other, but from others of their kind.

The rubber factory gives the tempo to one community, the coal mine to another. The cotton plantation gives one set of problems, the lumber mill another. The abandonment of a railroad line, the supplanting of one industry by another, the battle against soil erosion—multiplying in geometric procession, such factors make each community

unique. These differences are reflected in the tax rate of the school district, the kind of school buildings needed, and the very nature of the curriculum. School health problems and recreation programs, for example, will vary not only with climate and industry, but even with the mores of the people.

Only in the dreams of the superintendent of schools is there a typical school community. For this a patent planning device may be imagined—a handy gadget that will operate with the efficiency of a slide rule to tell when to build and where, what to teach and why.

But the practical superintendent will not look for a magic formula. He will instead look at the age and character of the community where he finds himself, the influences that spell change and what kind of change. And finally he will make plans for the future needs of his school system.

He will deal first with those factors that are the common denominators in planning and building.

There will be children to teach; there will be teachers, buildings, educational supplies, courses of study. And finally there will be taxpayers who will pay for the teaching in terms of their understanding of the needs of children and the needs of society, and in terms of their ability to pay.

Nor can the superintendent take these needs one at a time. They will call for simultaneous planning and action.

Building needs cannot be determined without preliminary analysis, which will include studies of the following:

1. Physical condition of the present school plant.
2. Age of the school plant.
3. Adequacy of available classroom space.
4. Population trends.
5. Shifting of population centers.
6. Study of birth rates, and the child population of preschool age.

Following such studies of immediate conditions, school authorities now find themselves in the roles of prophets and seers. Let them walk carefully lest they place a new school building on the wrong side of a prospective turnpike. Or in an area where land has been sold, without benefit of publicity, for an airplane hangar. Or in a "grandfather" neighborhood of tomorrow. Or in a blighted area destined for slum clearance.

School authorities will work with city, state, and federal planning groups, with road commissions, and with public utilities in determining shifting (Turn to page 17)

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STUDENTS AND FACULTY BUILD NEW DORM FOR 100

In two years an idea materialized into
a modern building for Wilmington College

BUILDING the new Wilmington College dormitory was truly a cooperative venture for all concerned.

Students and faculty at the college cut out for themselves nearly three years ago a big assignment—to build with their own hands a new dormitory to accommodate 100 men. The result is one of the largest, most modern, and attractive additions to the campus in the 80-year history of this Ohio college.

The project began on April 13, 1948, when Dr. Samuel D. Marble, young president of Wilmington, confronted the college family with a plan by which they might be able to get a desperately needed new men's residence hall which was otherwise impossible. He showed them a huge picture of the building and asked them if they would be willing to build it themselves, with no reward other than satisfaction for a good job well done. They were stunned, but soon the answer came back—an overwhelming "yes." Immediately they set to work in the rain and oozy mud to begin excavations for the building.

In the time that has elapsed, the story of devotion of these students to their college has spread around the world. It is hailed as a "shining example of the true American way of life." The students received a national award for outstanding volunteer service. The Wilmington idea is being copied widely and right now nearly a dozen other institutions throughout the country are trying projects similar to the Wilmington dormitory.

Challenged by this spirit of helping themselves in a "something for nothing era," more than 120 American industries shared in the project by contributing much of the material for the building, to help match the some 20,000 hours of volunteer labor. Local service clubs,

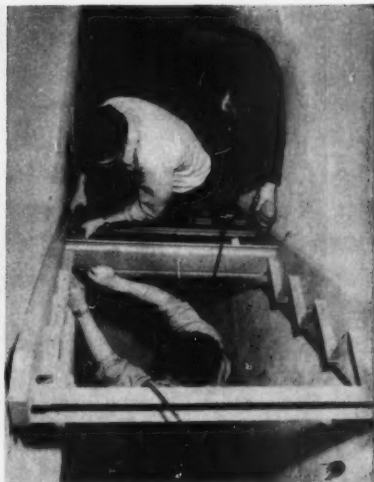
church groups, and other interested persons—including some professional construction workers—caught the spirit of the job and donated a considerable amount of work to help push the building through, as did students from several other colleges.

Construction work of necessity proceeded slowly because the men, co-eds, professors, and friends of the college in the local community who labored side by side could devote only spare time to the project. Of course, some professional help was needed to assure a perfect finished job and a few skilled workmen were employed from time to time for plumbing, bricklaying, and some carpentry.

Considerable credit for the success of the project goes to Professor Menzo Stark, chairman of the industrial arts department, who supervised the building work in addition to his full teaching duties. He contributed the know-how to weld the labor of the willing but untrained volunteers and the construction materials into a fine building, worth more than \$200,000.

In the final stages of the construction, the students in the industrial arts department formed the backbone of the labor force. Valuable experience was gained in applying the classroom techniques they had learned in metal work, wood finishing, electricity, cabinet work, and so forth.

The dormitory contains 40 sleeping rooms, 10 baths, and five spacious lounges. Attractively decorated, the individual rooms include large, built-in wardrobes equipped to double as chests. Other furnishings include beds, lounge chairs, study chairs, individual desks, lamps, and draperies. The third floor will soon be finished as a recreation room with 4,000 square feet of floor space.



Industrial arts students installed all the steel stairways



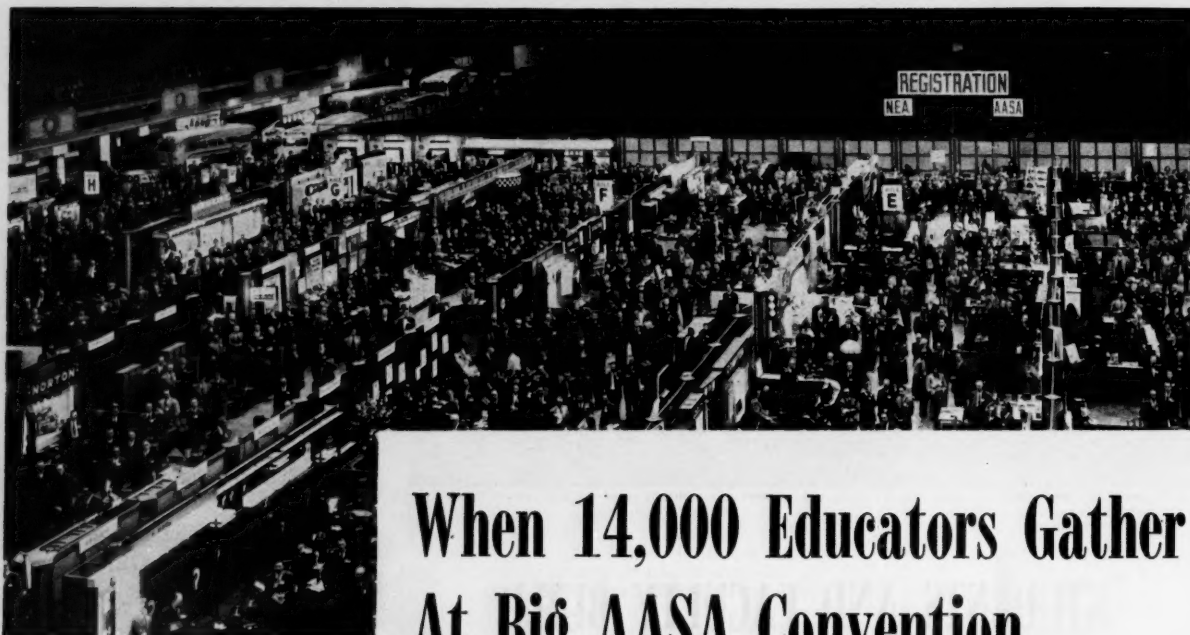
Why shouldn't co-eds be blocklayers in their spare time? They worked side by side with men and community friends



Faculty and students worked hard to put up walls. Week ends, nights, and other free time was spent on project



Now 100 young men enjoy the attractive finished product. We wager they enjoy it more because they helped build it



When 14,000 Educators Gather At Big AASA Convention The Interest Is TREMENDOUS

VERY much worth while. Stimulating. Tantalizing! Those are the adjectives that most people applied to the six-day 1951 AASA convention in Atlantic City.

Almost everyone attended the eight general sessions star-studded with big-name speakers, and just about everybody who visited Atlantic City at this time made many tours of Convention Hall where 300 firms displayed and demonstrated their school supplies and equipment. Never was there a lull in Room B of the auditorium where 76 school architects displayed their most modern and functional school building plans and models.

After registering and getting a program, no one person could possibly have attended all of the 66 valuable discussion group meetings, the scores of affiliated organization meetings such as the Department of Rural Education,

And what they said, heard, saw, and experienced will be

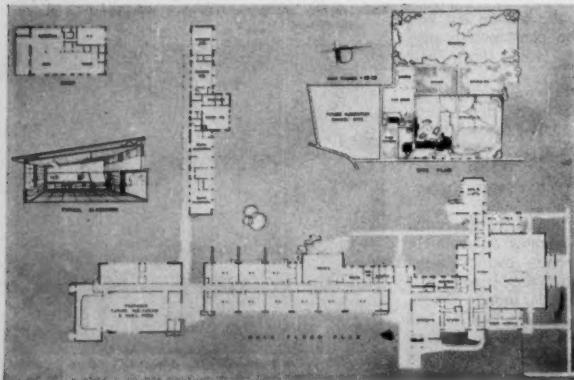
reflected throughout the country in city, town, village, and rural community schools

those held by the Department of Audio-Visual Instruction, and the National School Boards Association, to name just a very few. It would have taken at least 20 representatives from each community to attend all of the meetings every day!

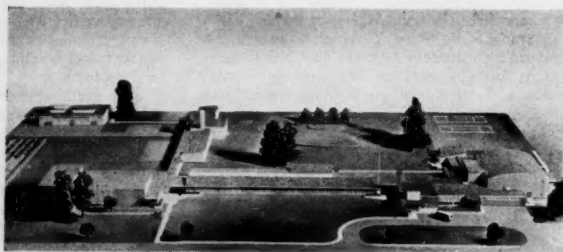
Choices had to be made, and this was difficult. Should one attend the discussion on the superintendent's role today, or one on organized propaganda against the schools? (Twice as many attacks have been made on them since 1948, as in the years preceding it.) Should one

take part in a discussion on moral reconstruction, on teacher training and certification, or should he learn the latest developments in the field of television? Many a schoolman felt pretty frustrated when he left Atlantic City on the final day of the convention because he wasn't 20 persons.

Kenneth Oberholtzer, popular superintendent of Denver schools and new president of the AASA, ill with the all too prevalent flu virus, was unfortunately out of circulation. Two new members were elected to the execu-



Mace's Lane High School, Cambridge, Maryland, was one of the 12 architectural exhibits which won a blue ribbon. Architects are Johannes and Murray of Silver Spring, Maryland; educational consultants Engelhardt, Engelhardt, and Leggett. A building to house between 600 and 750 pupils, at a cost of approximately \$850,000, will be built on a site a little larger than 92 acres. Heavy emphasis is placed on vocational training—vocational agriculture, shops, home arts, science, and on arts and crafts.



tive board—Jordan Larson, superintendent of schools in Mount Vernon, New York, and G. Arthur Stetson, superintendent of schools in West Chester, Pennsylvania.

It was decided to hold three regional meetings in 1952—in St. Louis, February 23-27; in Los Angeles, March 8-12; and in Boston April 5-9.

The school building exhibit, where new building plans and models were well displayed under hot spotlights, proved a magnet, attracting most of the conventioners again and again.

Five members of the screening body awarded 14 blue ribbons to the architectural exhibits. They were C. N. Fannin, assistant superintendent, Cabell County, Huntington, West Virginia; Ray Hamon, chief, Housing Section, Office of Education; James L. Reid, supervisor of school plant, Maryland State Department of Education; Howard Dwight Smith, university architect, Ohio State University; and Edward L. Varney, architect, Phoenix, Arizona.

A filmstrip of the architectural exhibit, ready for distribution from the AASA about May 15, will sell for \$5.

If you had "done the show" (Turn page)



TOP PHOTO

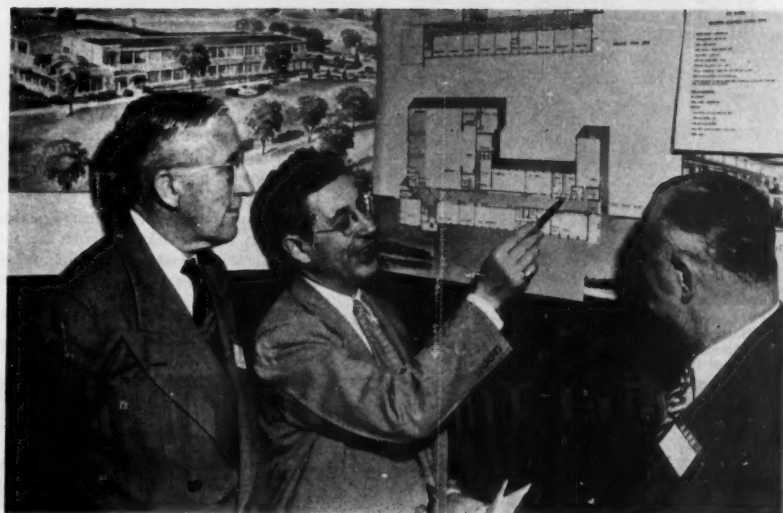
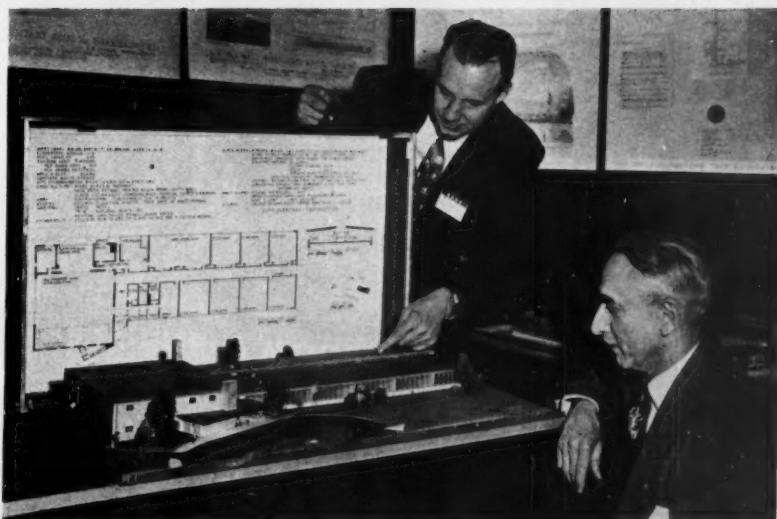
Dr. Henry M. Linn, professor of education at Teachers College, Columbia University, and Henry Daum, business manager, Abington, Pennsylvania, schools are greatly interested in the floor plans of the Junior-Senior School, Decatur, Alabama. They were amazed at the low cost per cubic foot—43¢; pleased with the adequate storage space, and with the good use of interior corner spaces for toilets. The building, completed September, 1950, houses 1,200 students in grades 7 to 12. Total construction cost, according to the architect, Raymond Sizemore of Montgomery, was \$1,065,000. Incidentally, Mr. Daum had a great deal to do with the first parabolic classrooms which were built in Abington in 1949. Though he did not design the building, he supervised all of the construction.

CENTER

Two architects show great interest in the work of a third. Loren L. Murray of Silver Spring, Maryland, points out to F. Ray Laimkuhler, supervising architect of the St. Louis schools, the economical roof construction of the West Local Elementary School, East Rochester, Ohio. Designed by George M. Foulks of Canton, the model was unusually well displayed in its original packing case. Floor plan was mounted in cover. This school uses space and material economically. It contains nine classrooms 30 x 29, and a multipurpose room. Construction costs will amount to \$187,000—55¢ per cubic foot. Utilities run to end of the classrooms since eventually it is planned to add four more rooms. Bilateral lighting with diffusing glass block above eye level is used in this compact model.

LOWER

Troy High School, Oakland County, Michigan, was commended by many for its simplicity. It was planned by architects Bennett and Straight with Ragnar L. Arnesen, associate designer, of Dearborn and Ann Arbor, Michigan. Anthony Ferrara, architect of Washington, D. C., points out interesting room arrangement to Dr. W. W. Theisen, assistant superintendent of Milwaukee schools, and to Dr. Felix McCormick, associate, Institute of Field Studies, Teachers College, Columbia University. This basementless school for 750-800 pupils is of steel frame, fireproofed, and with bilateral lighting to the second floor. Its heating system is designed for 75% expansion; all pipelines are concealed and available at strategic points through removable panels. Cost is \$542,259; 50.2¢ per cubic ft.



Tremendous Interest at AASA Convention

(Continued from page 5)

with such educators and school building experts as Dr. Henry Linn and Dr. Felix McCormick of Teachers College, Columbia University, and with architects such as William Arild Johnson of Everett, Washington, here are some of the trends you would have noted:

1. **Bilateral or clerestory lighting** is definitely on the increase in one-story

buildings. Wise use makes drastic reductions in glare and in shadow and brightness contrasts. Many methods and combinations are in evidence, and nearly all methods noted show higher intensities and better distributions than with unilateral lighting. Although the higher lighting level brings with it problems of darkening the rooms for projection aids,

that old bugbear is being licked by the rapid advances in the art of projection. Using the new type of screens with smaller, brighter images is one solution. This eliminates the necessity of having any special method for darkening the room.

The use of glass blocks is increasing, and more considered thinking seems to be resulting in better use. Clear glass still predominates. One lighting innovation is the use of plexiglass bubbles in the cor-

ridor of the South School in New Canaan, Connecticut.

2. **More attention is given to preventing glare.** Several schools shown have roof overhangs; sun shields are used in all parts of the country; and roof louvers are used, especially in California and southern schools. (One practical architect thought the latter might increase maintenance costs.)

3. **Most all rooms shown were above ground.** There were practically none in basements except for boiler rooms and service areas.

4. **One-story buildings** for both elementary and high schools are becoming more and more popular. Multistory buildings seem to be used of necessity where sites are restricted or very expensive.

5. **Modular construction** is rapidly taking hold.

6. **Classrooms continue to grow more spacious.** Some shown were 1,000 square feet. Other large sizes noted were: 30 x 30; 30 x 34; 30 x 36; and 30 x 26 feet. Square, parabolic, and parallelogram shaped rooms were in evidence. Flexibility seems to be the keynote. While arrangement of classrooms varies, the offset design, first used by architects Perkins and Will, is gaining new popularity.

7. **Acoustical treatment** in classrooms is becoming more common.

8. **Work alcoves** in elementary classrooms are found in many schools. Some visitors questioned whether it was better to have larger classrooms and let the teacher and the children determine the uses or to have a fixed working space. The trend toward work areas is definite, and seemingly architects are getting away from the separate workroom.

9. **Toilets adjacent to classrooms** are decidedly in the new school picture. (Editor's Note: See article "Toilets Adjacent to Classrooms Find Favor" on page 27.)

10. **Excellent use of corner spaces** at corridor intersections for toilets and closets is found.

11. **Sunboards in classrooms**, with storage space underneath, are another new development. These are covered with slate, plastic, or linoleum surfaces for plants, aquaria, and so forth.

12. **The campus plan** with buildings connected by open corridors is being used where the climate permits, primarily for high schools.

There's a tendency to narrower corridors. The new New Jersey code cuts them to about nine feet. "Why waste space on wide corridors," queried one educator, "when exits are usually about six feet wide?"

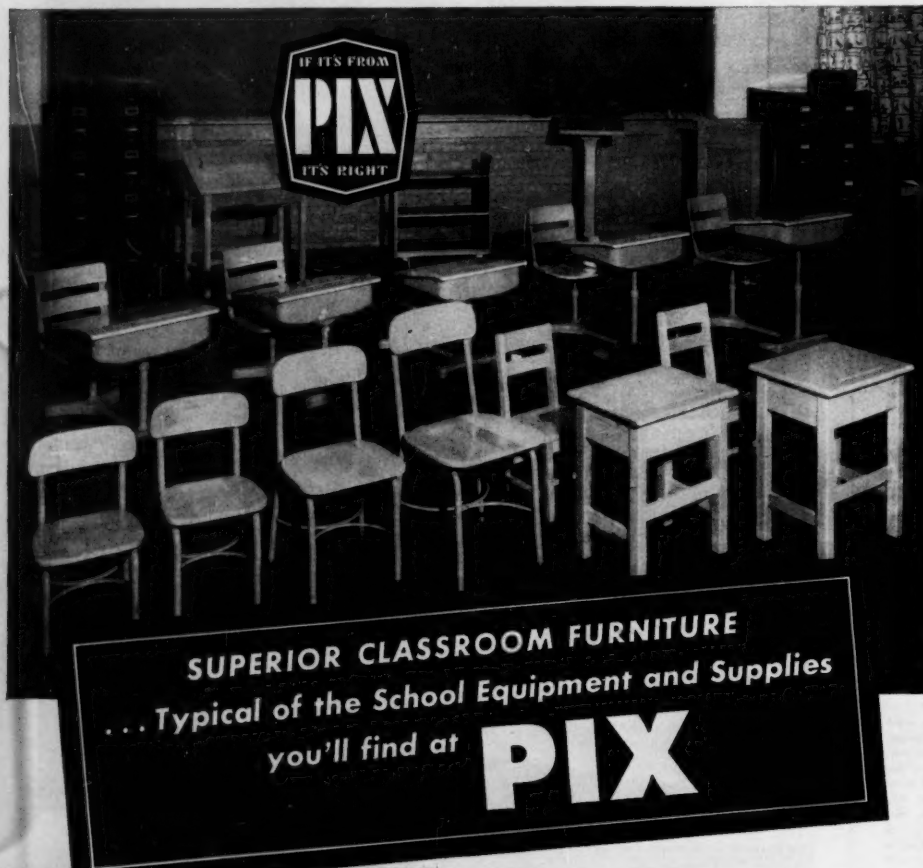
13. **Music, band, choral, and practice rooms** in connection with auditoriums were found most extensively in the western schools. But there seems to be no reason for confining these areas to the west!

Massing of units for use was noted in many instances, for example, auditorium and gymnasium, with a common lobby, to make either or both available for community use when the rest of the building is closed. There's a trend toward general service areas outside buildings, too.

14. **Much more attention is being paid to convenient parking spaces** for community use and for service.

15. **Auditorium-gymnasium combinations** are used primarily where economy dictates. They can prove a nuisance, however. Some teachers are denied the use of space when they need it, and the absence of a sloping floor makes it difficult to see the stage. In two schools shown, architects Perkins and Will got away from this combination. They put a small auditorium in the basement, under the play area above. Many architects and educators at the convention o.k.'d this practice

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since the auditorium is not in use too much of the time.

Many elementary schools are providing general activities or multipurpose rooms for the pupils.

16. **Exposed framework** is found in many gymnasiums and some classrooms. It saves money, and acoustics are often better than when a ceiling is installed. Many schools use cinderblock walls painted in various colors.

17. **Flat roofs**, less expensive to maintain than pitched roofs, are being used more commonly.

Disappearing from modern school construction are many anachronisms: massive clock towers, though some few still remain in new plans; porticos and ornamentation; pitched roofs; monumental masonry; and parapets, (their original purpose in days long since past was to prevent fire spread). Clean, simple, straightforward design is being applied to more and more school buildings. More and more schools are being designed from the inside out.

But who can explain the trend to massive chimneys? Of what use are they? Of what functional value?

While there were relatively few neighborhood primary schools shown, seemingly a beginning wedge is being made along these lines.

A more functional solution to clothes storage was found in several plans. One room model showed coat racks on casters which could be easily wheeled out of the way. One administrator was particularly pleased with nests of tables that could be easily stacked when not in use.

"It takes time to plan a good functional school building," remarked Dr. Linn. "A year is not too long. It is far better and less costly to correct errors in plans than to try to correct them after construction is started."

"True enough," agreed Dr. McCormick. "I'd like to mention cubic foot cost. Now that's an arbitrary symbol. Some schools more tightly planned may have a higher cubage cost than those with big auditoriums, gymnasiums, and cafeterias. Cubage comparisons can be misleading. It's always cheaper to build air! At this exhibit the spread on cubage costs varies as much as 100 percent—from a low of 50¢ to a high of more than \$1.00."

"After really studying this exhibit I believe that the pressing need for economy in school designing and construction because of today's high costs, and the need for conservation of materials, may prove a blessing in disguise," said William Arild Johnson. "Undoubtedly it will force much research, inquiry, and harder thinking that might not otherwise be done. Many valuable by-products will result in providing a healthier, happier teaching environment for our future citizens."

20 Ways to Cut School Building Costs

To a large and intensely interested group of school administrators and architects William W. Caudill, Texas architect, outlined 20 ways to cut school construction costs, gleaned from querying architects from Maine to California and from his own experiences. He asserted that there was no cure-all method or material for the epidemic of rising costs, no one method that marks the difference between a low-cost school and an expensive one. (Effective cost cutting is accumulative.) And a method that will apply in one section of the country may not work for other sections.

To design a relatively low-cost school, school planners must incorporate many methods and many low-cost materials in their plans. If cutting construction costs means sacrificing educational adequacy, it is wrong. There must be a balance be-

tween the educational needs and the school board's pocketbook. If given a free hand, an imaginative, economy-minded architect and a progressive superintendent together can help find that balance.

Cost reductions fall into three categories—materials, methods, and planning. "It is quite obvious we can cut the cost of the building by cheapening the fabric," said Mr. Caudill. "The trick is to cheapen the fabric without sacrificing maintenance

cost and educational utility." Here are several ways that some of the architects queried found to do this:

Materials of Construction

1. Specify roof decking that has multi-functions—as a structural material, as a thermal insulation material, and as a ceiling surface. For example, use insulative, lightweight, concrete roof slabs instead of regular concrete with insulation applied.

2. Use glued-laminated wood beams instead of steel.

3. Eliminate plastering by using concrete blocks where masonry partitions are required. However, Mr. Caudill's firm has never specified the blocks, he said. They prefer to use wood stud partitions which can be easily moved for a changing educational program. They cover these studs with soft wood panels so that the entire wall can be used as tack-board space, as Perkins and Will did in

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20 Ways to Cut School Building Costs

(Continued from page 7)

the very well-known Crow Island School.

4. Use dry-wall partition construction.

5. Take advantage of local situations. Make use of local materials where transportation charges are kept to a minimum. Although brick construction is generally higher than frame, there have been situations where the reverse holds true.

6. Give special attention to heating

units and their application. Since heating schoolhouses involves as much as 35 percent, or as little as five percent of total building costs, all of the architects queried by Mr. Caudill were concerned about ways to cut heating costs. Opinions differed, but in general the majority agreed:

a. That hot air systems are economical, but are not necessarily the best or

the most permanent type of installation.

b. That expensive pipe trenches should be eliminated.

c. That by properly integrating the heating system with the architecture, more efficient use can be made of the heating units. This in turn cuts first cost as well as maintenance cost.

Construction Methods

7. Where building sites are level, use concrete slabs on ground. They eliminate

the need for using expensive formwork.

8. Don't hide the structure. Most of the architects agreed that it was good economy to leave steel, concrete, or wood beams exposed. They thought exposed beams looked good, too. One architect said, "It is an honest expression of the structure."

9. Use repetitive structural units. It is cheaper per unit to build 300 similar structural units than it is to build one. The more similar structural bays, the better the unit cost.

10. Take advantage of mass production methods and tools. Today labor costs are as much as 65 percent of total construction costs as compared to only 35 percent a few years ago. To cut these costs, workers must have the advantages of labor-saving devices such as skill saws, stud welders, efficient lifting devices, and trench and foundation digging machines. That means, also, that the architect must design with mass production techniques in mind so that use will be made of these devices.

11. Use fewer and larger building units. A school building consists of many building materials, and many pieces of one material. Since expensive labor is required to put the pieces in place, it is apparent that the fewer the number of pieces we put into building a school the better off we are going to be as far as cost is concerned.

Planning Methods

12. Use outdoor corridors wherever possible. Heated halls cost money, money that generally isn't used for educational purposes. One architect stated that a small school district was able to get four additional classrooms by eliminating expensive, heated corridors. You can't teach in halls.

13. Design buildings to be as square in perimeter as possible with minimum number of breaks and corners. The smaller the area of outside walls, the cheaper the building. There is not only a saving in outside building materials; there is also a saving in heating equipment and operation. Some architects advocate rectangular classrooms arranged in such a way that the small sides are exposed to the weather. With new lighting methods, both natural and artificial, now being developed such a scheme is quite feasible.

14. In developing the school layout plan, arrange plumbing back-to-back. Two of the architects indicated there would be a saving by back-to-back plumbing; however, one said the saving was made "at the expense of classroom arrangement." Mr. Caudill doubts if there is enough saving to sacrifice classroom arrangement. According to his engineer there was a saving of only \$15 per classroom in one case study. This figure will vary with the situation.

15. Take advantage of modular design. Make full use of stock size building materials. For example, to economize lay out the structure to fit multiples of stock window sash and wall panels.

16. Eliminate parapets. These "falsies" not only cost money, but they create a terrible maintenance problem. One architect called parapet walls the "cancers of schoolhouses."

17. Design for multi-use of space. Such compromises as a room used as both cafeteria and playground are poor, but sometimes quite necessary because of limited building budgets. Here are some other multi-use spaces suggested by the architects:

- Combination gymnasium-auditorium. (In Mr. Caudill's opinion, a very poor compromise.)
- Combination of halls, exhibit, and lounge area.
- All-purpose room.



"Half-heard" words often mean "half-hearted" effort



Effective application to study is next to impossible in rooms where poor acoustics and distracting noise interfere with distinct hearing . . . compel students to strain for every word . . . make attention and concentration difficult. Teaching, too, is seriously handicapped by bad acoustical environment.

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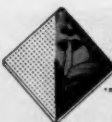
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18. Locate fan rooms to reduce length and size of ducts. This recommendation also applies to boiler rooms to a slightly less extent.

19. Eliminate "gingerbread."

20. Build one-story schools if possible. They can be built cheaper because materials specified need not be fire resistant. Where the cost of land is high, and where fire codes require fire-resistant buildings, this recommendation may not apply.

Mr. Caudill urged educators to do everything possible to change local tax structures or policies so that school boards will have adequate money to build 'logical school buildings.

There simply is not enough money under our present setup to build the kind of schools our children deserve—even with benefits of the cost-cutting methods discussed here," he concluded.

An English Appraisal

Antony A. Part, from the Ministry of Education in London, during a discussion of school construction remarked, to the delight of the audience, "Americans shut the windows, turn on the heat, drink ice water for comfort, and coffee to stay awake."

Fuller, Viles, Hamon Said—

The national survey of school facilities under Public Law 815 is one of the most important accomplishments of recent years in federal legislation fundamentally significant to education, declared Edgar Fuller, executive secretary of the National Council of Chief State School Officers. This \$6,000,000 survey will touch every public elementary and secondary school plant in the United States. It will be the first adequate national survey of all such facilities in the nation's history. With additional millions of "war babies" entering school and the national military preparedness emergency threatening the supply of building materials for schools, this survey will clarify school building needs. It will also present a factual basis for state and federal financing of school facilities in areas where the local tax base is inadequate to pay for them.

N. E. Viles, specialist, school plant management, Office of Education, pointed out that each of the first 10 months of 1950 set new all-time high construction cost records, and the national mobilization may add to the difficulty in obtaining materials and in costs. He noted that while school building costs have increased, costs per classroom have not increased as much as teachers salaries, total per pupil current expense costs, or the indices of general construction costs.

To bring the public elementary and secondary school plants of the country up to a reasonable standard of adequacy and suitability for modern programs of education and community services will require \$13.5 billion during the next 10 years, estimates Ray L. Hamon, chief, School Housing Section, Office of Education.

Seven Problems Which Face Educators Today

Worth McClure, executive secretary, AASA, working practically 24 hours a day, found time to outline seven of the big problems facing the schools:

1. **Swelling enrollments** arising from the soaring birth rates. This year's attendance grew almost one million over last year's. By 1960, school attendance will probably be eight million bigger than now.

2. **Lack of buildings** to house more children. School construction already lags

far behind, is now being halted by failure of National Production Authority to make allocations of steel and other critical materials. Press reports say that steel for all public buildings, except hospitals, is to be frozen June 1. Although school needs for steel are a small fraction of the total production, NPA seems oblivious of school needs. Lack of buildings means crowded classes and half-day sessions in many places. (One of the 22 resolutions passed by the AASA urged that when the

system of priorities and allocations is established the needs of the schools be considered as an integral part of the national defense effort. . . . Editor's note.)

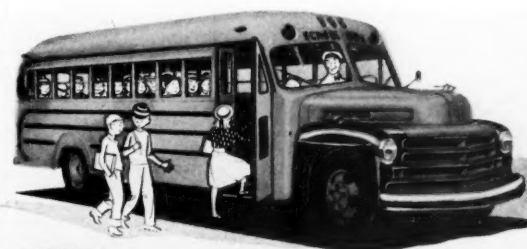
3. **Shortage of teachers** likely to become worse. No state has enough elementary school teachers.

4. **Lack of money** to serve the fast growing enrollment and offset the rapid increase in costs. More teachers cost more money. Teachers' salaries, always behind the rise of living costs, are now falling

further behind than ever. Everything the schools use costs a great deal more than it did last year. There is already evidence that the substantial increases in the national budget made necessary by national defense is beginning to dry up state and local sources of school support.

5. **Attacks on schools**, spearheaded by groups and individuals unfriendly to public education who seize upon these unsettled times as a good opportunity to undermine public confidence in school

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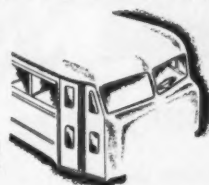
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Seven Problems Ahead

(Continued from page 9)

boards and school administrators. Unfortunately, these attacks are often supported by well-meaning people who do not know about swelling enrollments and rising costs and who are easily persuaded that school moneys are somehow being unwisely handled.

6. Personal attacks on school administrators. These seem to be standard

strategy of many groups who would cut local school expenditures. Superintendents of schools are caught between demands for more school services and facilities and the embattled taxpayer. A "flight from the superintendency" by professionally trained men and women could be the signal, as pointed out editorially by a national weekly two years ago, for the capture of the schools by political "yes-men." Such a calamity, wherever it occurred, might set education back as much as a quarter

of a century from its present point.

7. The Office of Education must be freed from the political peonage under which it now labors. Developments of the past three or four years have revealed tendencies contrary to everything the American people have been doing at local, district, and state levels to keep political partisanship out of the schools. To safeguard education at the national level against political domination, a national board of education should be established

as an independent agency. This board should direct the services of the Office of Education under the present statutes. It should appoint a professional educator as its executive officer.

This board should be composed of lay citizens appointed by the President, with the approval of the senate, to long overlapping terms. The need for an independent educational agency rests entirely upon the fundamental issue involved, and not upon personalities. We must never forget that the first move of every dictator has been immediately to make the schools of the country the mouthpiece of his ambitions.

Among the Resolutions

Among the 22 resolutions passed by the educators was one on military service. They reaffirmed their support of an adequate national defense plan in which all the resources of the nation are utilized, including the cooperative development and use of school facilities. It is their belief that the existing emergency can be met best by a revised and strengthened system of Selective Service which will re-evaluate the standards of eligibility for admission into the armed services. They opposed any form of legislation which, in the name of national security, "sets up parallel educational agencies that absorb, supplant, or duplicate the educational facilities now in existence."

In a resolution on public funds for public schools, educators reaffirmed their belief in the separation of church and state. They opposed all efforts to devote public funds to the support of nonpublic schools, directly or indirectly.

They recommended the immediate passage of general federal aid legislation without federal control. They urged that it be channeled through the regularly constituted public school agencies.

They also recommended federal aid to local districts for capital outlay in school building construction, to be channeled through the Office of Education and the state departments of education.

A national board of education as well as state boards of education of representative laymen was asked.

And the administrators urged the Federal Communications Commission to set aside for the use of noncommercial educational television stations at least 25 percent of the television area of the broadcasting spectrum which has not already been allocated.

We Can Afford More Education

I do not want to argue the fiscal question unduly, but I think I can convince the average person that we can afford more education, by citing the fact that during one fiscal year we are expecting to spend 54 billions of dollars for defense purposes. Even our reasonably quiet prophets predict more in the future. Suppose then, just for the sake of argument, we should make the very radical decision to spend one dollar for education for every \$99 we spend for defense. For the present fiscal year alone that would mean the expenditure of \$540,000,000 additional for education. It seems somewhat foolish of us to say that we cannot afford one percent of our federal expenditures for additional education, if we choose to make such an investment.

I don't happen to favor prohibition because I don't think it did work or will work. But I do strongly favor temperance in the use of alcohol rather than temperance in the provision of education. At present we spend \$8,000,000,000 for alcohol and \$5,000,000,000 for education. We could, if we chose, drink less and educate more. . . . Henry Hill, president, George Peabody College for Teachers, at the AASA convention

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Musings of a Placement Man

By ARTHUR V. LINDEN
Executive Officer of Field Relations and
Placement, Teachers College, Columbia U.

THIS placement man is increasingly concerned over the problems being faced by school superintendents. He has seen increasing mortality, not physical nor professional, but vocational, in the group all of us look to as the one expected to give administrative leadership



Dr. Linden

in our public school systems.

The mortality affects this placement man in many ways. He has known these men. He has respected them for their leadership. And he has liked them as persons.

But his concern about the situation

goes above his own personal feeling.

First, his concern grows out of reactions he has had from many younger men who have looked forward to the superintendency as the goal of their professional careers. Now, they ask, why get into that game? Why give the best years of our lives to a career which may be terminated at the whim of forces that care little for decent education, and that are only concerned with the furthering of selfish ideas? All of them, like this placement man, have seen men at conventions who at one time were young and vigorous, and who now are old beyond their years. Should we, these young men ask, take this beating?

Second, and more serious, is the concern of this placement man that this situation represents a concerted attack upon our present system of public education. The easiest man to attack is the top man. Question his motives. Attack his personal life. Smear him. Get rid of him. And so you undermine the confidence in public education as such.

It has worked. Will it continue to work?

This depends upon you, the colleague of the man under attack.

What is your answer?

On the Calendar

National Conference on Higher Education, Hotel Congress, Chicago, April 1-4.

Safety Convention and Exposition, sponsored by Greater New York Safety Council, Statler Hotel, New York, April 3-6.

American Association for Health, Physical Education and Recreation, Detroit, April 17-20.

International Council for Exceptional Children, Hotel New Yorker, New York, April 18-21.

American Industrial Arts Association, New York, May 2-5.

National and Inter-American Music Week, May 6-13.

National Conference on Citizenship, Washington, D. C., May 16-20.

National Training Laboratory in Group Development, first session, Gould Academy, Bethel, Maine, June 17-July 6.

National Association of Student Councils, Wellesley, Mass., June 18-21.

Mount Holyoke Institute on the United Nations, South Hadley, Massachusetts, June 24-July 21. The program will deal with the crucial world

problems confronting the United States and the United Nations today. Information and application may be obtained from the Executive Secretary.

National Science Teachers Association, San Francisco, June 28-July 2.

National Education Association, San Francisco, July 1-7.

Department of Elementary School Principals, NEA, San Francisco, July 9-20.

Department of Classroom Teachers,

NEA, Oakland, California, July 9-20.

National Training Laboratory in Group Development, second session, Gould Academy, Bethel, Maine, July 15-August 3.

Institute of Organization Leadership, NEA, The American University, Washington D. C., July 23-August 17.

National Council of Teachers of Mathematics, summer meeting, St. Olaf College, Northfield, Minnesota, August 20-24.

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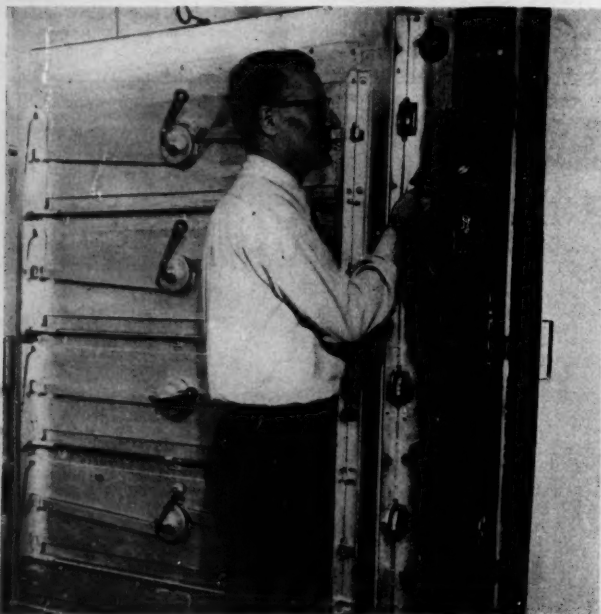
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Date of purchase _____ 19____		Description _____	
From _____	Model _____	New _____	
Cost _____	Number _____	Serial _____	Rebuilt _____
Term _____			Second-hand _____
Installed _____	Date _____	Cost _____	Capacity _____
By _____			Attachments _____
Guaranteed for _____ wk. _____ mo. _____			
By _____			
Inspection by _____	wk. _____	mo. _____	
Oiling by _____			
Period from service 3 mo. _____ 6 mo. _____ 1 yr. _____			Electricity _____
Period free repairs 3 mo. _____ 6 mo. _____ 1 yr. _____			Hand _____
Average hours per day used _____			Motor No. _____
			H.P. _____
			Current Cycle D.C. _____
			A.C. _____
Parts easily available Yes _____ No _____			Trade-in value \$ _____

COST OF UPKEEP			
Date	Time Required	Description of Repair	Cost

You will find that keeping a record of equipment repairs is worth while. Above, sample chart

SCHOOL and college food service is big business, any way you look at it. It gets bigger every day. The millions of dollars already invested in food service equipment is huge, yet each year the money spent and the amount of equipment purchased increases. School and college building and expansion programs are always slower than private or commercial building and expansion. But the hundreds of thousands of students pouring into schools all over the country, from kindergarten through college, has finally forced the issue and the boom is on.

It is a complicated process and takes a long time to get an appropriation for funds for any kind of educational program. Although everyone likes to eat and most people regularly eat three meals a day, the food service department of many educational systems is the stepchild. Yet food service goes on in depression and boom times, in peace and wartime. A good maintenance program conscientiously followed through is one of the more important factors in good food service management. It really pays dividends to take good care of the tools of this profession.

I am equipment-minded, and it always surprises me to discover food service directors and managers who do not realize the importance of such a program, nor the importance of including maintenance in their budgets and work schedules. When food service people get together the most discussed problems are food cost and labor problems. The present percentage costs of food and labor are glibly talked over, but seldom is there a word about equipment maintenance costs. Equipment is the base of the triangle with food cost on one side and labor costs on the other. Food production and final

GOOD MAINTENANCE PROTECTS YOUR EQUIPMENT INVESTMENT

Today, more than ever, you want to do all you can to keep your valuable equipment in good order

By MARY FARNAM

School and College Management's Food Service Editor

sales are then at the top of the triangle.

Without good equipment good food service is impossible. Food costs can be cut and labor costs decreased by the proper use of equipment and by adding modern labor-saving equipment. Good equipment, given good care, doesn't quit, doesn't come to work with a headache, and doesn't ask for "a raise or else."

All equipment asks is to be used for the job for which it was built, and for perpetual day-by-day good care. Failures of gas or electric power seldom occur. Mechanical failures of modern equipment, except for a few isolated cases, are usually due to improper usage of the machine or lack of maintenance and daily care. Modern machinery will take a lot of use and abuse. But it is just plain common sense to save dollars for service calls and replacement of parts by good housekeeping.

I often mention my "heirlooms" when referring to some piece of equipment 25

to 30 years old, which continues to do a good job day in and day out. For this good service I take no personal credit. But I do give a big vote of thanks to the many people in our school system who over the years have taken good care of this equipment and have extended its years of usage far beyond the expectation of the manufacturer or the dealer who sold and installed it.

A maintenance program written out and filed in my office did not do it. It was done by good daily care and good housekeeping. During the last war everyone became aware of the necessity for taking good care of all equipment since most of it could not be replaced, and often not repaired, for the duration. We must not forget this hard lesson. Once more our country is engaged in war which some experts tell us may last 10 to 30 years.

Cleveland Heights is in the midst of a building, expansion, and remodeling program. Even last fall there were

delays and difficulties in receiving equipment for our new school. The first of the year's delays in remodeling were caused by lack of stainless steel for new counters. Even standard pieces of equipment were slow in arriving. Much extra work in refiguring bids was caused by continual increases in price between the time bids were sent out and business awarded.

We already feel the pinch of inconvenience because we can no longer just lift the phone and get immediate repair service. In the greater Cleveland industrial area many men and women have returned to war plants and many are now in the armed services. Good service repair men are skilled mechanics. Their departure means a smaller repair crew and the resulting delay in service.

How can you protect your equipment? At the end of any school period make a thorough inspection of all your equipment including glassware, china, and silverware and determine the repairs and replacements that are needed. Next see that all your equipment is in good operating condition. Then keep it that way! The many automatic controls on today's equipment give immediate notice when the machine fails to operate. But there are many hidden places where wear and damage take place from lack of proper oiling, cleaning, and checking.

If you do not have copies of the instructions that originally came with each piece of equipment, secure new ones for each item. It is helpful to enclose a page of these instructions in cellophane covers and post on the wall near the machine. Even though your employees are well trained, a constant reminder is helpful to them and of value to you. You can place a label on each fuse box show-

ing the correct size fuse needed for each outlet, and keep a spare fuse on hand for each outlet. Improper fusing can cause a great deal of damage and means costly repairs. Fasten tags to each valve or outlet indicating its use, such as steam, hot water, gas, drain, and so on. This method was instituted during the last war under the civilian defense plan. It's a good idea to continue it.

Card index each piece of equipment in each school and keep duplicate sets in the director's and engineer's office. They will be useful for scheduling regular servicing of each machine, and as a check list for periodic inspections. If you are located in an area where regularly scheduled inspection is made by your utilities companies or a paid service company you are fortunate. Inspections are worth the cost as preventive measures to catch wearing parts, loose connections, and other minor difficulties before real damage is done to any machines or your food production operation is interrupted.

Maybe Replacement Is Needed

When frequent or constant repairs are necessary, it is a warning signal that you should replace the machine instead of paying out money to "whip a tired horse up hill." For example, if a refrigeration unit needs replacement of parts and minor repairs every month or oftener that is a warning to be heeded. Accompanying this article is a copy of a form to record equipment repair. You might want to include even more detailed information.

Unused equipment can deteriorate badly if left dirty and in improper condition. In your daily schedules of work for each employee include her assignment for the cleaning and care of each piece of equipment in the kitchen and serving room. This adds up to a formidable list. But if some cleaning is done each day the equipment is not allowed to become dirty. Then each cleaning process is easier and more quickly accomplished. These cleaning schedules should include regular daily care, special designated weekly cleaning, and extra special cleaning at longer intervals during the year. Between semesters and at the close of the school year are excellent times to do this.

Schedules are not enough. It is necessary to supply employees with the proper tools for each cleaning process, the correct detergents, and other cleaning supplies. Show each employee how to take care of the equipment, and be sure she understands the instructions. Then the important thing is to follow through and see that it is done as scheduled. Make the directions as simple as possible. Tell what to do, how to do it, why it needs to be done, and any special short cuts or important points.

Organize Your Instructions

The most time-consuming job of all is getting your instructions organized and written down in logical, simple order that is easily understandable by any worker. Once this is done it will pay dividends in time saved.

Two other good reasons for an intelligently planned, well-regulated use and maintenance program are sanitation and safety. We hear more and more about the importance of good sanitation, which most of us take for granted. However, a visit to some food service kitchens may surprise you.

Recently when planning to send out specifications for the purchase of a new bake oven and new ranges, I was taken unannounced after the lunch period to see several different brands of equipment in actual use. One restaurant in a well-known chain had various brands of equipment of varying ages. Cleaning processes were going on while food was being prepared for the evening meal. Even the oldest piece of equipment was clean and

in working order, a silent salesman for itself and a compliment to the employees. They told with pride the number of years they had used different bake ovens and stoves, and how much they liked the operation and performance. These ovens and ranges were their trade tools, they appreciated them and kept them in good working order. And they produced good food, too. Any day any time is visiting day, and these employees like it.

Contrast this with another restaurant

we visited. This kitchen had recently been equipped with everything new. No expense had been spared in buying the very best of everything. However, each piece of equipment was splashed with spill-overs, on top of the ranges, down the fronts, in the burners, inside the oven decks. Spilled material on the floor invited falls and accidents. It looked as if no cleanup had ever been done, since several layers of spilled cooked-on material were everywhere. That equipment

will not be operating efficiently for very long and will not last many years under that kind of abuse.

The silverware was washed and dried in a beautiful machine and removed carefully with a clean towel to a tray. Then the operator picked up each fork by the tines and spoon by the bowl as it was sorted! No one had told her to pick up each piece by the handle for sanitary reasons: Her careless handling nullified the work of the machine. (Turn)

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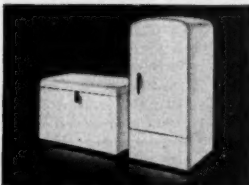
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Good Maintenance Protects Your Equipment

(Continued from page 13)

A picture like that with everything now puts the spotlight on many things. Workmen's compensation files are filled with a record of accidents and even deaths resulting from faulty performance of restaurant equipment: burns caused by a faulty gas connection or improper lighting of an oven; fingers caught in electric fans, bread machines, slicers, and mixers.

The Safety Council tells us that 99 in 100 accidents could have been prevented. Accidents are a menace to the efficient operation of food service. Each new employee should be taught the rules of sanitation and safety. It is also important to review these rules with all employees at regular intervals. An occasional unsafe way of operating equipment

can easily become a careless habit, result in personal injury to the employee, and cause a breakdown of the equipment.

All this mounts up to the observance of common-sense good housekeeping methods, not spasmodically but every day. Food service operation in schools and colleges is a big part of a big business. Each unit from the small one-room rural school service to the modern enormous college service contributes its share. This business is important and will become

more important in the next few years.

Modern equipment represents a large dollar investment. More than that it represents a large amount of labor saving and a greatly increased amount of work accomplished. Therefore, review your equipment situation. If necessary, revise the methods of using each piece in order to get maximum use and maximum return on your investment. The dividend will be easier, smoother working schedules in your kitchens.

Check over methods of cleaning each piece. You will find a regular daily cleaning better than a hit-and-miss plan. Begin with the directions of the manufacturer and add refinements to fit your own particular needs. Modern equipment is well built of excellent materials. It will withstand hard use but not abuse. Time and money spent for labor to keep this equipment clean and in correct running order will take a much smaller part of your budget than repair bills, buying replacement parts, and paying for service calls. In addition, you will improve the general appearance of your kitchen, prolong the life of your equipment, and spread your investment over many years.

Maybe some day money can be set aside when new equipment is bought to form a nucleus of a fund to be used for maintenance and replacement over the years. I know that our monthly depreciation charge is never large enough to keep pace with rising costs. Our physical inventories are set up using purchase prices. Many of these figures are now ridiculous when compared to the present day price. Perhaps we should revise these figures to keep pace with the rising costs.

Conditions may be much worse before they are better. So protect your present investment in equipment with a good maintenance and use program.

Books to Help You

Care of Food Service Equipment. American Dietetic Association (1944). Burgess Publishing Company, 426 S. Sixth St. Minneapolis, Minnesota. 86 pages. \$1.50.

This book, developed by members of ADA, should be in every food service director's library. It gives a detailed record sheet for many pieces of equipment. If you have a single-unit operation, the forms in this book can be used. If you have a multiple operation, you can make additional copies for each unit. Excellent directions are given for the operation of each machine.

Maintenance Chart for Gas Cooking Equipment. Gas Consumers Service, 230 Park Ave. New York, New York. Obtain it free from branch office nearest you in Boston, New York, Chicago, Philadelphia, Cleveland, Pittsburgh, Detroit, Los Angeles, San Francisco, Minneapolis, or Washington, D. C.

Chart tells what to look for, what to do, how often to do it, and gives many general pointers.

How to Make the Most of Your Hotpoint. Edison Electric Kitchen, Edison General Electric Appliance Company, Inc. 5600 Taylor St. Chicago, Illinois. 33 pages. Free.

This booklet tells how to operate pieces of electrical equipment, and lists daily, weekly, and monthly care. It includes maintenance schedules.

THE Michigan Education Association now has its own million dollar camp at St. Mary's Lake, Battle Creek, according to the *Battle Creek Enquirer-News*. The association had leased the camp for two years. Recently the W. K. Kellogg Foundation gave it to the group.

The association plans to winterize two cabins to provide sleeping accommodations for groups up to 200, as one of its first improvements.

MAKE NUTRITIOUS MEALS MORE DELICIOUS



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Colorado Springs, Colorado



Granulated **BOUILLON CUBES**

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MAGGI'S SEASONING

COOKING WITH MAGGI'S GRANULATED BOUILLON

is such an easy, economical way to spark the flavor of everyday dishes. All you do is dissolve it in hot water or add it directly to the cooking water. Rich in beefy goodness, Maggi's Granulated Bouillon brings out the full, natural flavor of meats, soups, sauces and gravies. Use it whenever recipes call for beef stock. Serve it frequently as an instant-quick broth, too.

For more facts use Inquiry Card. S&CM-9K

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BRUSHES DESIGNED TO SWEEP AND CLEAN FASTER AND EASIER

FLOOR BRUSHES



FLO-PAC Yarn Floor Brushes are made of highest quality yarn attached to a hardwood block—quickly and easily removed for washing or replacement.

FLO-PAC Floor Brushes are available in widths from 12" to 42". Filled with fiber, hair, nylon or Chinese bristles.



NEW METAL-TIP HANDLE

FLO-PAC now offers, at no extra cost, a metal-tipped handle, combining the strength of smooth finished hardwood with a solid, cast aluminum threaded tip. This metal tip insures against threads breaking off, often spoiling both brush and handle. The new metal tip CANNOT BEND—WILL NOT BREAK. Shipped with most FLO-PAC Floor Brushes at no extra cost.



FOUNTAIN BRUSHES FOR WASHING BUSES



For faster, better cleaning of buses, we feature BUSWASH and FLEET-WASH. These fountain type brushes provide a steady stream of water

to rinse, as they wash, as they scrub. Both models have aluminum heads, rubber bumpers, and 5 ft. steel handles.



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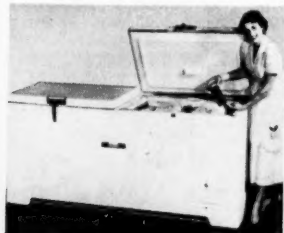
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FOOD SERVICE EQUIPMENT

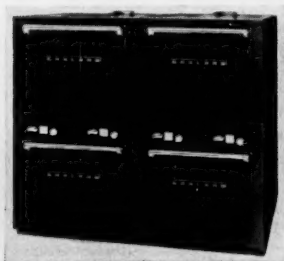
Consult the SCHOOL AND COLLEGE MANAGEMENT Product Information Page, 21. Use the postage-free Inquiry Card; indicate key number of item about which you want further details.



New Freezers S&CM-440K

Two new freezers are offered by Hot-point. The 23-cubic-foot size, shown above, has an 808-pound capacity. It can freeze 130 pounds every 24 hours. Since it has two counterbalanced lids, only one section of the appliance need be opened at a time. The 15-cubic-foot freezer has a 532-pound capacity, and can freeze 73 pounds every 24 hours.

Both models have a convenient compartment above the freezing unit. The user can freeze food in this section without disturbing other stored articles, and then later transfer it to baskets in the storage cabinets. Both models have interior lights and lighted alarm signals that indicate a 15 degree temperature rise. Freezing units are hermetically sealed. . . . Use the Inquiry Card or write to Hot-point, Inc. Dept. S&CM-440K, 5600 W. Taylor St. Chicago 44, Illinois.



Roasting Oven S&CM-444K

Detroit-Michigan Stove Company has added an improved roasting oven to its Garland line of commercial cooking equipment. The many new features of the oven include a more powerful loop-type burner with nonclog lighter tube, and automatic oven lighting for all gases. There are improved oven heat controls. The oven is available as a single unit of two ovens or as a double unit of four ovens. . . . Use the Inquiry Card or write to Detroit-Michigan Stove Company, Department S&CM-444K, Detroit 31, Michigan.

Equipment Maintenance S&CM-445K

Cafeteria supervisors and their co-workers will find the new "Equipment Maintenance Manual" by Augusta Clawson an invaluable aid. Supervisors can use it as a tool for teaching the worker, and then can tear out the sheets and give them to the worker to clinch the instruction and serve as a reference sheet.

The easy-to-read manual tells how to operate and clean 58 different pieces of kitchen and bake shop equipment. Information is in chart form under the two

heads of "what to do" and "how to do it." The work sheets also carry a list of the supplies and equipment to be assembled in preparation for the job, an estimate of the time needed to perform it and the frequency with which it is needed, and places to record costs in terms of labor and supplies. . . . Use the Inquiry Card or write to Ahrens Publishing Company, Book Department, Dept. S&CM-445K, 71 Vanderbilt Ave. New York 17, New York.

Paper Plates

You can serve any kind of food—even stew—from Bondware plastic surface plates. Neither hot nor cold food soaks in. Regular Bondware paper plates have smooth hard surfaces that may be used for dry foods to add color or bring down the cost of serving at special functions. Both types of plates are also available divided into three sections, to keep foods separate. . . . Use the Inquiry Card or write to Bowes Industries, Inc. Dept.

S&CM-446K

S&CM-446K, 5537 N. Clark St. Chicago 40, Illinois.

Banquet Jug

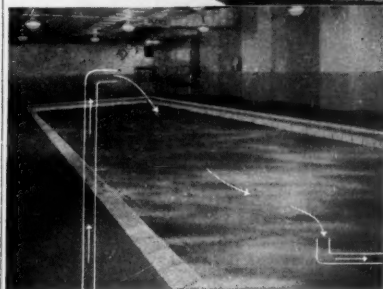
The Stanley stainless-steel lined banquet jug, No. ST3304, is handy for serving liquids away from the kitchen—to students or to PTA members. It can be used to keep drinks either hot or cold for long periods of time. The jug has a wide, easily cleaned mouth and a quick-

S&CM-442K

(Turn to page 16)

For more facts use Inquiry Card. S&CM-10K

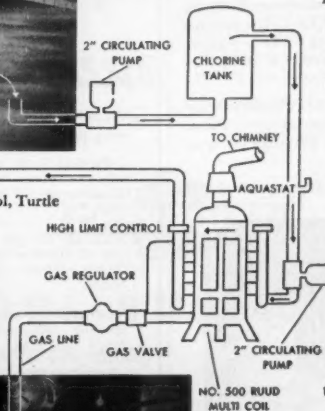
RECIRCULATING GAS WATER HEATING SYSTEM ASSURES UNIFORM POOL TEMPERATURES



Sixty-foot by thirty-foot swimming pool, Turtle Creek, Pennsylvania, High School.

Schematic arrangement of recirculating system using single Gas Waterheater for tempering water in swimming pool.

Maintenance Superintendent Fred M. Schmitt discusses Gas Waterheater operation with R. N. Spear, Ruud Mfg. Co. Gas Waterheater at left furnishes hot water for showers, washrooms, etc.



ECONOMY is an important feature in the operation of Turtle Creek High School pool—the economy of water-heating with GAS, plus the continuous recirculation of 50,000 gallons of water.

Pool water-temperature is maintained at a constant 78° and the water is pumped through the system at the proper rate for chlorinating and reheating. The Gas Waterheater is automatically controlled to compensate for all operating variations.

But the pool system is only one of three Gas Waterheating installations in the school. Hot water, for gymnasium showers and the school washrooms, is furnished by a Ruud #5 parallel-flow Gas Waterheater utilizing a 750-gallon tank for off-peak storage of water for showers.

In the school stadium a third Gas Waterheating installation in the dressing rooms includes a Ruud #500 M.C. Waterheater connected to a 1000-gallon storage tank to accommodate peak demand from showers.

These three systems demonstrate the flexibility of Gas Waterheating Equipment and the versatility of GAS for automatic supply of hot water for all requirements. Your Gas Company Representative will give you complete details.

Illustrations courtesy Ruud Manufacturing Company, Manufacturers of Gas Waterheating Equipment and Heating Boilers Installation by Gray & Duquette, Turtle Creek, Pa.



AMERICAN GAS ASSOCIATION

420 LEXINGTON AVENUE, NEW YORK 17, N.Y.

HOW can modern schools best do their jobs?

The Association for Supervision and Curriculum Development believes they can only if:

1. Pupils, teachers, and administrators grow in understanding what life is about.
2. Everyone has a chance to test for himself what is important and what isn't.
3. Youngsters learn by making choices and seeing how they work.
4. Youngsters have a chance to think

and talk about our social structure and decide how it may be improved.

5. What happens in the school is determined by what boys and girls need individually and in groups, now and tomorrow.

6. The curriculum—what boys and girls do in school—has meaning and significance for the youngsters.

7. All community agencies, including our homes and schools, work together for better education.

8. There is mutual respect and confidence as we work together to improve our schools.

9. School programs are continually being weighed and improved in the light of tested ways of working.

10. Parents and citizens are helped to understand what their youngsters need to learn and how it can be taught.

11. State and federal aid goes to communities which cannot pay for good schools.

FOOD SERVICE EQUIPMENT

(Continued from page 15)

Consult the SCHOOL AND COLLEGE MANAGEMENT Product Information Page 21. Use the postage-free Inquiry Card; indicate key number of item about which you want further details.

flow safety lock spigot. Capacity is 5 gallons. . . . Use the Inquiry Card or write to Landers, Frary & Clark, Stanley Insulating Division, Department S&CM-442K, Center Street, New Britain, Connecticut.

For more facts use Inquiry Card, S&CM-11K



When youth must be served use KYS-ITE!

High spirits . . . horseplay . . . jostling—typical school cafeteria. But schools that use KYS-ITE Trays and Tableware don't worry.

KYS-ITE, the different kind of plastic, can "take it." KYS-ITE is almost unbreakable . . . won't shatter . . . tough to chip or crack. Quieter, too . . . never clashes or clatters. And easier to handle and keep clean. KYS-ITE's colorful beauty won't fade when sterilized in boiling water or washed with regular dishwashing compounds. Its color is part of the plastic itself . . . not just a surface finish.

KYS-ITE offers a range of round and rectangular serving trays—also the famous KYS-ITE "Meal-in-One" Plate. This 3-partition plate holds a meal plus beverage yet is so light a small child carries it easily.

Your wholesaler can supply you. Or mail coupon today.



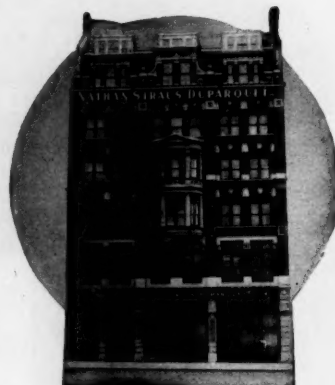
KEYES FIBRE SALES CORP., Dept. N-4,
420 Lexington Ave., New York 17, N. Y.

Please send us information on
KYS-ITE Tableware ☐ KYS-ITE Trays ☐

NAME _____
TITLE _____
NAME OF SCHOOL _____
ADDRESS _____
CITY _____ ZONE _____ STATE _____

For more facts use Inquiry Card, S&CM-12K

★ EVERYTHING FOR SCHOOLS!



Complete Equipment and Supplies for Schools!

★ MAIN FLOOR . . . CHINA . GLASS . SILVER—Everything for the perfect table service!

. UTENSILS — A complete line of fine quality utensils! Aluminumware — Enamelware — Stainless Steel Ware — Woodenware—Wire Goods—Cleaning Supplies.

★ SECOND FLOOR . . . KITCHEN EQUIPMENT—A complete line of Dishwashers — Glasswashers — Silver Burnishers — Peelers—Mixers—Slicers—Ranges and other Kitchen Machinery.

. DUPARQUET KITCHEN EQUIPMENT—the finest quality specially fabricated Sinks — Work Tables — Warmers — Steam Tables, etc.

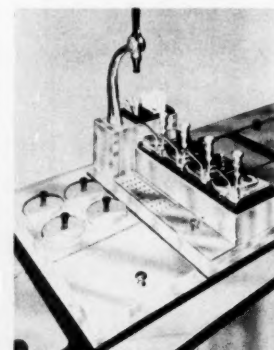
. REFRIGERATION — The finest makes of Commercial high temperature and low temperature refrigerators. Walk-in and reach-in models, upright and chest types. DUPARQUET REFRIGERATORS manufactured for special requirements. Water Coolers—Ice Cream Cabinets.

★ THIRD FLOOR . . . FURNITURE AND FURNISHINGS —A complete display of fine furniture—Floor Coverings —Linens and Decorative Accessories.

- A skilled Food Service Engineering Department!
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- 4 floors of stock for prompt service!

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Compact Soda Fountain S&CM-441K

School soda fountains and snack bars can make good use of the new low-cost Serv-All. This diminutive fountain occupies the space of only two compartments of a standard ice cream cabinet, yet it is equipped with a 2-way soda draft arm, 4 standard syrup pumps, 4 crushed-fruit jars with ladles and spoon holder, a chipped-ice compartment, and storage space for 9 quarts of milk. It utilizes a conventional precooled water bath method for soda water. . . . Use the Inquiry Card or write to Smith-Werner Company, Dept. S&CM-441K, 610 Santa Fe Dr. Denver, Colorado.

For more facts use Inquiry Card, S&CM-54K

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World's Largest Manufacturer
of fine Playground, Swimming Pool
and Physical Fitness Equipment

ANDERSON, INDIANA

Planning Schools for Today and Tomorrow

(Continued from page 2)

population trends. Arterial highways, telephone cables, power lines, sewers, water mains, government housing, all have a bearing in determining the site and size of a school building.

Once the spot on a map has been chosen for the new school building, another type of planning begins. This might be called the pre-architectural stage. Pupils, parents, architects, teachers, and community groups will be involved at this point. Such questions as the following have been used by Denver planning groups.

Community Requirements

1. How many children will attend this school when it is completed? In 10 years? In 15?

2. Are there racial differences among the prospective pupils? What economic brackets are being served?

3. What are the needs of the boys and girls who will attend? For example, if a high school is being considered, will the chief emphasis be on the academic or the vocational aspects of education? If the latter, what kind of vocations should be considered in designing classrooms and laboratories?

4. Will the school neighborhood use the building for community activities? If so, what kind of activities? Recreational? Other?

5. What should be the size of classrooms? What equipment should be included? How much storage space will be required?

6. How much will it cost?

7. Can the community afford to pay?

Answers to these questions entail study, research, committee work, and publicity before the architect begins to work out in drawings the combined thinking of all those who have had a share in the planning.

Included, too, must be a study of the best means of financing building construction. Out of current revenue? From bonds? The answer is not merely one of whether to pay now or on the installment plan. Before coming to a decision school authorities, again working with groups of citizens, will study the tax base of the district. Tax levies do not always move upward. Valuations will rise or drop with the changing character of a community. Property depreciates, and cycles do exist in our economy. The program of amortizing school bonds should not be accepted with the serene faith that prosperity will be at high tide 10 years from now. Here must be found a balance between pessimism and optimism.

Curriculum Needs

While building needs are being analyzed and projected into the future of a community, the schools should be operating in the field of curriculum needs. It cannot be assumed that all the children and youth of any area will remain there—nor can it be taken for granted that all will move away. While some will scatter from Oregon to Florida, others will live to carry on in their own communities the work of their fathers and grandfathers, or to initiate their own enterprises. For all children, then, there must be provided a broad program of general education, of those common learnings essential to all citizens, and of intelligent understanding of the vocational basis of our economy from the local to the international. This does not mean, however, that the salmon industry is meaningful in the vocational training program suitable in a sugar beet area.

Under direction, committees of teachers

will plan what is to be taught in the schools, with consideration for such factors as:

1. The needs of all children and youth wherever they may go.

2. The needs of the individual child in his particular environment.

To carry out such a program of planning for the future it is necessary to maintain a public relations program that brings about a community understanding of the goals of education. Citizens must

comprehend, for example, that teaching ways to get along together does not mean that the multiplication tables have been lost by the wayside.

What does the community know now about its schools? What does it expect from its schools? What the schools do next depends to a great extent on the answers to those questions.

We cite here an opinion poll recently made in Denver. A summary of this poll brought out the following:

The public is generally favorable toward the Denver public schools' program, but not uncritically so.

Seven out of 10 expressed praise for the schools in response to general questions.

Five out of 10 persons said that the schools were good. Only one out of 20 said they were poor.

Five out of 10 offered some criticism of specific points, but only one out of 10 had criticism alone to offer. (Turn page)

For more facts use Inquiry Card, S&CM-13K



NEW 1951 CHEVROLET School Bus Chassis

Safety has always been the first consideration in the engineering of the Chevrolet School Bus chassis—in the choice of materials, in design and construction. And now, for 1951, they have the extra safety added by Chevrolet's Twin-Action heavy-duty rear brakes and new Dual-Shoe parking brake. . . . Second only to safety comes economy of maintenance and operation, assured by Chevrolet's valve-in-head engine, four-speed transmission, heavy-duty rear axle, and long-lasting clutch. You save in first cost, too. . . . For safety and savings, choose Chevrolet.

CHEVROLET MOTOR DIVISION, General Motors Corporation,
DETROIT 2, MICHIGAN



SCHOOL BUS CHASSIS

199-INCH WHEELBASE SCHOOL BUS CHASSIS

Gross vehicle weight, 13,500 or 15,000 pounds, depending on tire equipment. Capacities, 42 to 54 pupils. Chevrolet Loadmaster valve-in-head engine, 105-h.p., 193 foot-pounds torque (pulling power) at speeds governed under 35 m.p.h. New Twin-Action heavy-duty rear brakes. New Dual-Shoe parking brake.

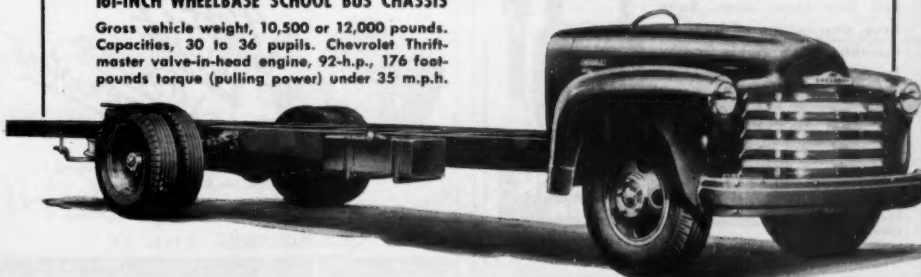
161-INCH WHEELBASE SCHOOL BUS CHASSIS

Gross vehicle weight, 10,500 or 12,000 pounds. Capacities, 30 to 36 pupils. Chevrolet Thriftmaster valve-in-head engine, 92-h.p., 176 foot-pounds torque (pulling power) under 35 m.p.h.

governed speed. New Twin-Action rear brakes. New Dual-Shoe parking brake.

137-INCH JUNIOR SCHOOL BUS CHASSIS

Gross vehicle weight, 7600 pounds. Chevrolet Thriftmaster valve-in-head engine, 92-h.p., 176 foot-pounds torque (pulling power) under 35 m.p.h. Proved dependable Double-Articulated brakes. Capacity, 16 pupils.



Planning Schools for Today and Tomorrow

(Continued from page 17)

Both supporters and critics of the schools agreed on the goals of education. A good education, in the thinking of the public, is evidenced by: advanced English language skills such as speech, conversational ability, and self expression in writing and talking; social and psychological skills such as manners, poise, ability to get along with people; basic

English skills such as grammar and spelling; and wide interests and knowledge.

The most important finding to be made from such a survey in any community is the uncovering of those areas in which citizens need more information and better understanding of the goals of education.

Today's public relations program will, therefore, not only tell the story of the schools, but also will bring the community into discussion groups and committee activities. The schools must realize that channels of communication work two ways. The educator is not always on a rostrum. This program will recognize that each pupil, parent, teacher, and other school employee is a part of the public relations program. It will recognize, too, that a program of information must be

carried out within the school system as well as within the community.

The informed pupil, the informed school employee, the informed parent—these are the most important agents of the school public relations program. And techniques for bringing them into a functioning relationship to the school program must be developed.

For the school employee, a constant flow of information must be maintained—through faculty meetings and through published materials.

For parent group meetings new techniques must be developed. Gone are the days when parents sit patiently through a program in which their sole function is that of listeners. The parents' ideas and support are vital to an ongoing program. To secure these ideas and this support, schools must develop ways of encouraging questions, free expression of opinion, and discussion. Hence the schools will encourage the development of those discussion techniques which bring about participation in the study of school problems and their solution.

As we succeed in learning what parents and other members of the community think of their schools and want from them—as we succeed in developing among them an understanding of what this business of education is all about—we shall be securing the support of our schools to the end that equal opportunities may be made available to all of our boys and girls.

New Custodian's Manual

THE Milwaukee, Wisconsin, Board of School Directors has issued a 43-page pamphlet for janitors, engineers, and other personnel engaged in the operation and maintenance of school buildings. Entitled "Code and Work Manual for Plant Operation," it outlines employment requirements, working conditions, and general duties and responsibilities of the maintenance staff. Operational practices for maintaining minimum standards of school housekeeping are included.

For more facts use Inquiry Card. S&CM-14K

Save Meat-Shrinkage by Slow-Roasting at 300° F. and still get

TIP TO LUNCHROOM MANAGERS



EXTRA RICH BROWN COLOR IN ROAST AND GRAVY



DON'T let those precious roasts shrink and shrivel away under high oven heat. *Slow-roast* them and cut down meat-shrinkage. You'll find a roast actually yields more servings than you would get if it were roasted the former high-temperature way. There's greater retention of nutritive values, too.

—here's all you do to add rich brown color

Just brush the meat, before roasting, with Kitchen Bouquet and it will come out of the oven with a luscious, rich brown

crust. Be sure to add Kitchen Bouquet to the gravy, too, for extra rich brown, appetizing color and stepped-up flavor.

Made of garden-fresh vegetables, herbs and spices

Kitchen Bouquet contains no artificial flavorings to "smother" food flavor, but brings out—enhances—the true rich taste of the meat. Works wonders with inexpensive stews, meat loaves and casserole dishes. Just try Kitchen Bouquet and you'll never be without it. Send today for generous Free Offer below.

KITCHEN BOUQUET

USED BY GOOD COOKS AND CHEFS FOR OVER 70 YEARS



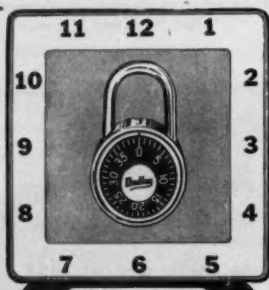
At your grocer's in 2 and 4-oz. sizes. For Pints, Quarts and Gallons, call your institutional supplier.

Free!

Quantity Recipes and 4-oz. bottle Kitchen Bouquet.

Just drop penny post card to Kitchen Bouquet, Grocery Store Products Co., Dept. SM-4, West Chester, Pa.

For more facts use Inquiry Card. S&CM-15K



Save time for everybody

Troublesome, unstandardized locker locks cost you hours of lost time every year. Save time, stop cutting off locks by installing dependable Dudley Locks, schoolwide. No budget expense required. Write for details and Catalog Folder.



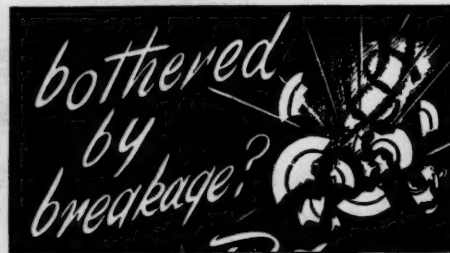
Master-Keyed P-570

Lock shown at the top of the page is Master-Keyed KD-2.

DUDLEY LOCK CORPORATION

570 West Monroe Street, Dept. 411, Chicago 6, Illinois

For more facts use Inquiry Card. S&CM-16K



Save with Restaware

The modern dinnerware molded of MELMAC Proved by years of service in leading restaurants, schools and institutions.



All popular service pieces designed for standard portions. In 8 gleaming colors.

For money-saving ideas and the name of your nearest jobber, write to

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PUNCHES sheets and covers of any size or weight, quickly, accurately



BINDS up to 250 books an hour with colorful GBC plastic bindings

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NOW anyone in your school can quickly... easily plastic bind educational and administrative material into easy-to-use booklets in a matter of seconds. Complete GBC equipment costs less than a typewriter... binds loose sheets of all sizes into workbooks, lab manuals, study guides. Pages turn easily... lie flat. Teaches new binding methods. Valuable in every school department.

SPECIAL TRIAL OFFER Send today for information and 2 handy pocket memo books bound on this equipment. No obligation. General Binding Corporation 808 W. Belmont Ave., Dept. SCM-4 Chicago 14, Ill.

JEFF SAYS



The custodian at periodic intervals should inspect his school building to determine the size of fuse in the fuse box. If fuses blow in his absence, a fuse of too high an amperage may be inserted by teachers, pupils, or building users. This may cause an overload on the circuit.

When a fuse blows don't put in a new fuse until you find the trouble. This may be difficult but will pay dividends. Fuses should be removed and inspected periodically to see that a poor contact is not maintained. When the contact between the clips and fuse is not tight, air reaching the contact surface can cause oxidation and discoloration. . . . Julius Barbour

Wilmington Cooperates with Local Industries in New Supervision Courses

ANOTHER cooperative, new plan specifically designed to train men in industrial supervision was recently launched at Wilmington College in connection with local industry. The project will enable men to earn a Bachelor of Science degree while getting valuable employment experience, reports *Trends in Church, Education, and Industry Cooperation*.

On the campus the undergraduate receives a regular liberal arts education planned to: (1) develop a broad knowledge of contemporary life as preparation for good citizenship; (2) give specialized training in those areas of knowledge and skill needed in professional life. The industrial training phase of Wilmington's curriculum takes students from the campus in pairs to hold down a full-time industrial job while subject to the same regulations and privileges as other employees, including the same wages.

When they are working, Wilmington students schedule slightly reduced academic loads, but keep their entire program within a four-year limit by attending summer courses. They do not leave their campus residence during the entire four-year period. As a work team, two students on a job take the place of one full-time employee on a regular weekly basis. They work on alternate days and attend classes when not on the job.

Working on the program with administrators and faculty members was the Cincinnati Industrial Institute, a management clearing house, research, and planning center for 125 industries in the Cincinnati area. The Institute made a preliminary survey of industrial conditions to ascertain the need for supervisory workers. A detailed survey of skills, attitudes, and capacities for such positions followed.

This program allows students taking complete work terms to earn full college expenses, including tuition, board, books, and pocket money. Those participating in the program with less than a full schedule may earn more than half of their total expenses.

Wilmington students are not expected to become engineers, accountants, or trained specialists. They are expected to acquire special industrial skills and a

broad knowledge of America's economic system as it relates to industrial activity. General courses in the curriculum include English, principles of business organization, a survey of accounting, economics, labor problems, and business and industrial mathematics.

NERVOUSNESS during examinations may be lessened by making the first question so easy that no one can miss it. . . . *Education Summary*

ONE solution for the problem of federal aid to education "so simple that it has apparently not occurred to anyone" is advanced by Mario Pei, of Columbia University, in *School and Society*.

He states that all the federal government needs to do to extend real aid to education, all along the line, without a cent of administrative costs and with a maximum of efficiency, is to exempt from federal income tax the first \$3,000 of compensation received by anyone from

teaching or other educational functions.

As Mr. Pei points out, the more highly paid members of the teaching profession will not be relieved of all tax obligations. But the plan would make a teaching salary of between \$2,000 and \$3,000, tax exempt, fairly attractive. This plan would mean a decrease in federal revenues that would be only a drop in the bucket compared to the outlay needed to endow the sort of federal aid to education that some politicians envisage.

For more facts use Inquiry Card, S&C-18K

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presenting the claims
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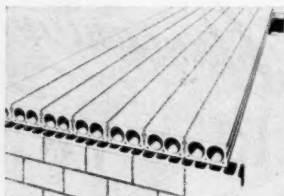
blonde, hardwood unit has ample knee space. It is exceptionally strong without being needlessly heavy, so it can easily be moved about the room. Glides with rounded metal surfaces cushioned in rubber accommodate any unevenness in the floor. . . . Use the Inquiry Card or write to Educators Furniture and Supply Company, Inc. Dept. S&CM-414K, Sacramento, California.

New Floor Cleaner S&CM-412K

Floors may be safely cleaned, sanitized, and deodorized in a single operation with Germelin. It is excellent for lunchroom floors as well as general school areas. The liquid is effective on all types of floor surfaces. Both manual and mechanical methods of cleaning may be used with it.

This new soap cleans quickly and rinses freely. It deodorizes by killing the bacteria which often cause stale and disagreeable odors, and it leaves a fresh, clean odor of its own. The cleaner will destroy most dangerous floor bacteria on contact. Diluted with water in a 30 to

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Fire resistant floors and roofs of Flexicore slabs cost less because they are mass produced on an assembly line, delivered to the job as required, and erected quickly with a small crew. Therefore administrators will be glad to know the new 8 x 16-inch slab is a natural for a 24-foot schoolroom with a 60-pound load

requirement. This is because it will clear span 26 feet.

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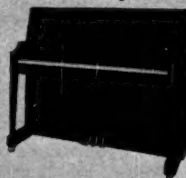


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(Turn to page 22)

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Dormitory Furniture S&CM-404K
Functional modern furniture is featured in the new No. 7000 Carrom dormitory grouping. It is constructed of northern hard birch and northern hard birch plywood to provide lasting strength with low upkeep. Included in the grouping are

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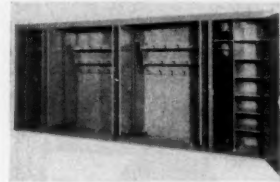
The cellular sheet steel building panel is protected with a perlite plaster ceiling.

This type of construction weighs about 60 percent less than reinforced concrete construction. Advantages are speedier and less costly construction, and weight savings of such proportions that over-all building costs are greatly reduced with a considerable saving of critical materials. . . . Use the Inquiry Card or write to Detroit Steel Products Company, Dept. S&CM-418K, 3303 Griffin St. Detroit 11, Michigan.

Chalkboard Cleaner S&CM-424K
Keep your chalkboards in good condition with the Statler cleaner. It is a fast, efficient means of cleaning chalkboards, chalk rails, and erasers without use of water. Unit comes with a 35-foot extension cord to reach all boards in an average-size room. . . . Use the Inquiry Card or write to Statler Refacing Company, Dept. S&CM-424K, 518 Jefferson Ave. Toledo 4, Ohio.

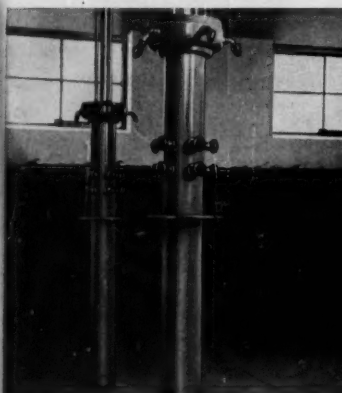
Reversible Windows S&CM-426K
All cleaning of Williams reversible windows can be done safely from inside the building. With this equipment window cleaning costs may often be reduced by at least 40 percent. The windows provide classrooms with overhead ventilation. They can be completely weatherstripped.

For easy operation they slide on non-rattling spring rollers that compensate for shrinking and swelling. . . . Use the Inquiry Card or write to Williams Pivot Sash Company, Dept. S&CM-426K, 1827 East 37 St. Cleveland, Ohio.



New Wardrobe S&CM-417K
Teachers will like the new Austral Economy wardrobe. It looks very much like the all-steel Straight-8 wardrobe, with the same modern lines and solid bronze hardware. But in the new wardrobe, steel has been replaced by woods wherever practicable. The use of critical materials has been curtailed to make a low priced, sturdy, handsome unit. . . . Use the Inquiry Card or write to Austral Sales Corporation, Dept. S&CM-417K, 101 Park Avenue, New York 17, New York.

For more facts use Inquiry Card, S&CM-23K

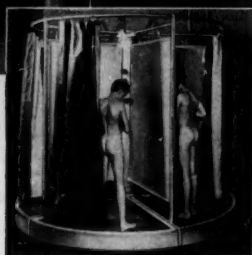


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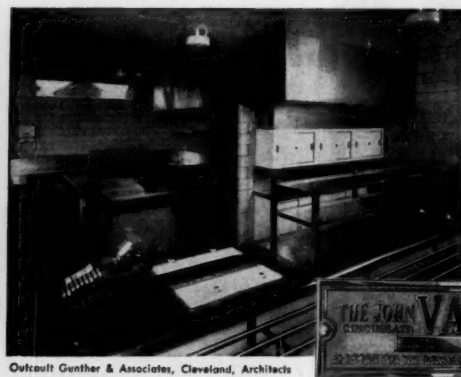
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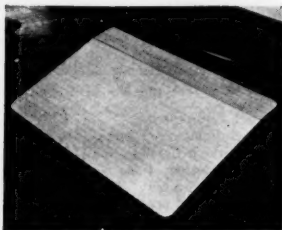
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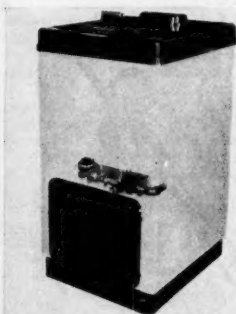


Wet-Dry Vacuum S&CM-402K

Low-cost operation is a valuable feature of the new Model 95 Silent Huntington wet-dry vacuum cleaner. Its $\frac{1}{2}$ -hp motor has extremely low power requirements.

This portable, heavy-duty machine weighs only 30 pounds. It has a capacity of $1\frac{1}{2}$ bushels or $9\frac{1}{2}$ gallons. Three-caster mounting prevents teetering on uneven floors, while a low center of gravity and 27 $\frac{1}{2}$ -inch height make the machine easily maneuverable in confined areas. Interior of machine is finished with rust-resisting, heavy baked enamel.

. . . Use the Inquiry Card or write to Huntington Laboratories, Inc. Dept. S&CM-402K, Huntington, Indiana.



New Incinerator S&CM-416K

With the new Brulé M-1 gas-fired incinerator, smaller schools can have the same convenience and economy as has been available to larger schools. The unit is adequate for service of schools having about 16 classrooms or an equivalent waste problem. It gives automatic

ignition of dry wastes. It is built for a lifetime of trouble-free use and utmost safety.

The M-1 can also be conveniently installed as a gas-fired hot-water heater. . . . Use the Inquiry Card or write to Brulé Incinerator Corporation, Dept. S&CM-416K, 407 S. Dearborn St. Chicago 5, Illinois.

New Wall Coating S&CM-401K

Low-cost decorative effects can be given

to school offices, student lounges, rest rooms, and auditoriums by the use of Adtex wall coating. Exterior brick, stucco, or porous masonry will also benefit by its use, for it has good weathering qualities. This easily blended material will quickly transform any type and color of flat oil-based, rubber, casein, or water-mix paint into a textured, rough plaster finish. To use it, you simply mix it with equal parts of paint and apply with a brush. A stipple roller can be

used with oil-based or rubber paints. . . . Use the Inquiry Card or write to Lowebeo, Inc. Dept. S&CM-401K, 1525 East 53 St. Chicago 15, Illinois.

Cold Hide Glue

S&CM-408K

Excellent for use in woodworking classes is Franklin liquid hide glue—a strong adhesive in ready-to-use form. It requires no heating, has no odor, does not stain wood. It comes in 6 sizes ranging from a tube to a gallon. Schools may have

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a free sample for testing on a small project. . . . Use the Inquiry Card or write to Franklin Glue Company, Dept. S&CM-408K, 119 W. Chestnut St. Columbus 35, Ohio.



Green Bulletin Board S&CM-405K
You're being kind to students' eyes when you furnish schools with the new Lite-green Peerless Corkola bulletin board. You'll also find it harmonizes with the company's green chalkboards. Color of

the board is not just on the surface. The cork composition is $\frac{1}{8}$ inch thick, bonded to $\frac{3}{4}$ -inch fiberboard backing. Because of this rigidity, it can be nailed to studding or mounted over rough masonry walls with no fear of cracking. The material is available both in made-up bulletin boards, as shown here, and in 4-foot-wide sheets of varying lengths. . . . Use the Inquiry Card or write to Beckley-Cardy Company, Dept. S&CM-405K, 1632 Indiana Ave. Chicago 16, Illinois.

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Here is a practical adjunct to classroom instruction—a wood study and identification kit. Neatly packed in a small wood box, the kit contains 54 specimens of important commercial species of wood and its products which are used in the United States. To make identification and general knowledge of wood both entertaining and instructive, a knife and 10-power hand lens for use in cutting and studying the wood are included. An 84-page illustrated manual describes the properties and uses of each species and gives forest conservation information. . . . Use the Inquiry Card or write to Timber Engineering Company, Dept. S&CM-427K, 1319 Eighteenth St. N. W. Washington 6, D. C.

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Maintenance Materials S&CM-468K
"Institution Maintenance Portfolio". . . . Use the Inquiry Card or write to Wilbur & Williams Company, Dept. S&CM-468K, 130 Lincoln St. Boston 35, Massachusetts.

Snack Bar Equipment S&CM-474K
"Stools and Table Bases". . . . Use the Inquiry Card or write to Chicago Hardware Foundry Company, Dept. S&CM-474K, North Chicago, Illinois.

Projection Screens S&CM-476K
Radiant screen catalog. . . . Use the Inquiry Card or write to Radiant Manufacturing Corporation, Dept. S&CM-476K, 2627 W. Roosevelt Road, Chicago 8, Illinois.

Plastic Dinnerware S&CM-473K
"Boontonware, Fine Dinnerware Fashioned of Melmac". . . . Use the Inquiry Card or write to Boonton Molding Company, Dept. S&CM-473K, Boonton, N. J.

School Equipment S&CM-469K
"School Equipment, Accessories & Supplies," School Catalog No. 1, listings in this first catalog of the new school, college and university department range from desks and pencils to floor machines and maintenance supplies. . . . Use the Inquiry Card or write to Albert Pick Company, Inc. Dept. S&CM-469K, 2159 Pershing Road, Chicago 9, Illinois.

TEACHING MATERIALS

Consult the SCHOOL AND COLLEGE MANAGEMENT Product Information Page, 21. Use the postage-free Inquiry Card; indicate key number of item about which you want further details.

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Music Week Material S&CM-480K
"1951 Letter of Suggestions for Local Chairmen and Workers." 8 pages. Available for a 3¢ stamp.

This leaflet tells how to arouse interest in and promote National Music Week. The programs tend to stimulate greater year-round interest in music and music education, and to further specific local music projects. There is a page on activities for the schools. . . . Use the Inquiry Card or write to National and Inter-American Music Week Committee, Dept. S&CM-480K, 315 Fourth Ave. New York 10, New York.

Music Poster S&CM-481K
"Find Your Place." 17 x 22 inches. Free.

This new, 2-color poster shows a school orchestra with a magnifying glass centered on one performer. Its aim is to encourage the viewer to join his school's musical organization. . . . Use the Inquiry Card or write to American Music Conference, Dept. S&CM-481K, 332 S. Michigan Ave. Chicago 4, Illinois.

NEW RECORDINGS

Consult the SCHOOL AND COLLEGE MANAGEMENT Product Information Page, 21. Use the postage-free Inquiry Card; indicate key number of item about which you want further details.

Romeo and Juliet. S&CM-492K. Two nonbreakable, 12-inch, LP 33 $\frac{1}{3}$ r.p.m. records—\$12.95.

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A free catalog listing the different recordings, describing the various situations, and giving the duration and general classification of each theme is available. . . . Use the Inquiry Card or write to Audio-Master Corporation, Dept. S&CM-490K, 341 Madison Ave. New York 17, New York.

I Can Hear It Now, Volume III. S&CM-491K. Five shellac, 12-inch, 78 r.p.m. records—\$7.20. One nonbreakable, 12-inch, LP 33 $\frac{1}{3}$ r.p.m. record—\$5.45.

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rated by Edward R. Murrow. Wherever possible the actual voices and recorded sounds of events have been used. Where this was impossible, re-enactments have been made using original texts and testimonies. The album is a montage of American customs, behavior, and politics in the twenties. It opens in 1919 with Woodrow Wilson's fight for the League of Nations and closes with Franklin D. Roosevelt's first inaugural. . . . Use the Inquiry Card or write to Columbia

Records, Inc. Dept. S&CM-491K, 799 Seventh Ave. New York 19, New York.

RADIO Corporation of America, RCA Victor Division, Dept. S&CM-K, Camden, New Jersey, offers two illustrated albums in the Little Nipper Series. Each has 2 nonbreakable, 10-inch, 78 r.p.m. records—\$2.31 for each album. Two nonbreakable, 7-inch, 45 r.p.m. records—\$2.26.

Treasure Island. S&CM-493K. This

recording of Stevenson's book is taken from the Disney film. Bobby Driscoll as Jim Hawkins does a good job of making the story dramatic and exciting. There is excellent background music.

Happy Mother Goose. S&CM-494K. Kindergartners will like Kukla, Fran and Ollie's modernized, happy version of the nursery rhymes. There are some interesting musical arrangements, as where "Old King Cole" utilizes square dance music.

For more facts use Inquiry Card. S&CM-28K

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"Stay in School" Booklet Helps Lads

BECAUSE so many high-school and college lads are seriously considering leaving the classroom to enlist, they are being urged by educators to stay in school and college and get as much formal education as they possibly can. One voice raised for more schooling belongs to Carl C. Byers, superintendent of the Parma, Ohio, public schools.

He recently sent a letter to the 800

sophomores, juniors, and seniors in the Parma Schaaf High School. Because it may help other administrators in the tough job of selling bewildered pupils, we reprint the following excerpts—

If you "are on the fence" and undecided as to whether to continue in school, enter some branch of the armed forces, or quit and take a job, take time to read the rest of this letter.

A weekly pay check may look more attractive and seem more appealing than a high-school program, but stop and think. The present world conflict ends, we enter another reconversion period, and you find yourself in a glutted labor market without the training required, technically or vocationally, to hold down a good job. What then?

You can't afford to let a blurred future in a war-riddled world throw you for a loss. Your world is not only

where you live, but how you live, on a day-to-day basis.

Nothing but eventual disappointment and loss of opportunity can be predicted for boys (and girls) who quit now and do not complete their education. Once the present critical condition is past, you will probably experience difficulty in even getting inside an employment office for an interview unless you are a high-school graduate. Stay in school now! It is the patriotic thing to do.

Education is something you attain or achieve. It can't be given to you. No one can take it from you. The young man or woman with a good school record has immediate advantages over the person who failed to take advantage of his opportunities.

Whatever you do, dare to do right. Dare to stand out from the crowd and do the things that you know are right because you really want to do them. And keep clean physically, mentally, and spiritually. You may fool your parents. You may bluff your teachers. But you have to live with yourself and there's one person you can't fool. That person is you.

Advice from Eisenhower

THE lowering totalitarian menace on the international horizon must not blur our perspective. America will arm itself and survive. But the gravity of our problems and the resolution required to end them emphasizes again that our chief resource is the American citizen's intelligence and understanding, readiness and capacity to do his full duty. . . . To neglect our school system would be a crime against the future. Such neglect could well be more disastrous to all our freedoms than the most formidable armed assault on our physical defenses. Where our schools are concerned, no external threat can excuse negligence; no menace can justify a halt to progress. . . .

General Dwight D. Eisenhower

For more facts use Inquiry Card. S&CM-30K

For better vision, better posture, better grades . . . the new American Universal "Ten-Twenty" Desk

No new school desk has ever matched the swift acceptance of the American Universal "Ten-Twenty"—key to the co-ordinated classroom. Teachers praise it unanimously. And pupils prove its contribution to better vision, better posture, and better grades.

This is the only desk with top easily, silently adjustable to three approved positions. It is the only desk with automatic fore-and-aft seat adjustment to provide focal adjustment for all tasks in any desk-top position. Seat swivels 45° either way to silent cushioned stops, reducing body torque for left or right eye-hand preferences and permitting easy ingress and egress.

Other important advantages include 30% to 55% light reflectance, sanitary one-piece steel book-box, easy height adjustment for both seat and book-box. Write for full-color brochure with full description.



Desk-top, shown above at correct 20° for reading, writing, or drawing, is easily adjusted to conventional 10° slope, or to level position for manipulative tasks, or lifted for instant access to book-box. Deep-curved plywood back with self-adjusting lower rail, and plywood cradleform seat with no rearward elevation, promote relaxed sitting and complete freedom to perform.



FREE BOOKLETS:
Write for "The Co-ordinated Classroom," by Darrell Boyd Harmony also "The Case for the 'Ten-Twenty'."

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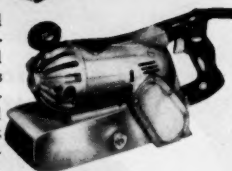
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Change old desks to eye-saving natural finish this easy way



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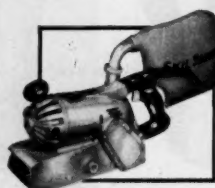
"Desks should be natural colored wood with a non-glossy finish." The old dark, polished desk tops produce too great a contrast between light-colored books and papers. That causes eye strain, discomfort, and needless fatigue.



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3" belt. Weighs 15½ lbs. Size: 4¼" wide x 15¼" long x 8¼" high. Belt speed: 1200 ft. per second. Durable. Refinishes all materials . . . wood, metal, or composition. Many school uses: refinishing desks, furniture, blackboards, etc.

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Toilets Adjacent to Classrooms Find Favor

By RICHARD M. WILKES of
Flawelling and Moody, Architects
Los Angeles, California

IF you want to start a lively discussion in school circles, mention toilets adjacent to classrooms.

Controversial as it is, however, the reaction of school teachers and administrators in schools where we have included such toilets as part of a building project has been universally favorable. Group toilets are not ruled out as a functional part of the school plant under any plan. They are needed for playground use, even under the adjacent plan.

Louise G. Parkin, principal at W. Claude Hudnall School, Inglewood, California, says, "We find there are several advantages. (1) They are healthier. (2) It is easier to control the discipline in them. (3) They help continue good toilet habits started at home."

Administrator Lists Benefits

From Paul C. Butler, former district superintendent, La Canada School District, comes the following comment.

"At Paradise Canyon School each classroom has an individual toilet room, one for boys and one for girls. I can state unreservedly that they have fulfilled every expectation and in some cases surpassed even our own hopes. Some benefits might be mentioned:

"1. Parents of Paradise Canyon School are completely enthusiastic and approving of the facilities.

"2. Teachers are extremely pleased with the response of the children in the use of such a lavatory system.

"3. Keeping lavatories clean has ceased to be a problem since children take pride in the proper use of the lavatory. Janitorial maintenance has been reduced to a minimum.

"4. To date there has been no single instance of abuse or misuse.

"5. The absence of urinals in the boys' lavatories has resulted in eliminating a smelly and hard-to-keep-clean fixture. Their omission has in no way limited or handicapped the use and purpose of lavatory facilities for boys.

"It is my earnest desire that any future schools which I may have a part in building, be designed in a similar manner."

Dr. Mervyn Purdy, school doctor for the La Canada School District, believes that individual lavatories are a definite improvement over the traditional banks of fixtures. He states:

Better Health Conditions

"The toilet facilities at the Paradise Canyon School have been found adequate and sanitary. Inspection reveals that individual schoolroom toilets are much easier to keep clean than are multiple-type lavatories used in other buildings. Thus, better health conditions exist.

"Infections spread through contact with toilets are limited to a greater extent in the individual rooms than in lavatories used by the entire school. There more students are exposed to any contagious conditions."

Dr. Robert E. Cralle, superintendent of schools, Inglewood, California, where four new schools have toilet facilities adjacent to classrooms says:

"Parents, teachers, and children are pleased with these facilities. They are much easier to supervise than group toilets in an isolated part of the building."

In Duarte, California, District Superintendent Hazel L. Nelson states:

"In each of six classrooms in the Duarte Primary School we have both girls' and boys' toilets. Children use them as naturally as they would a bathroom

at home; there are no discipline problems, and habits of health and personal hygiene are practiced as an integral part of the child's day. Teachers strongly recommend their continued use.

"It is my personal conviction that with such installations we have moved forward to more comfortable and convenient classrooms. I would like to have all elementary schoolrooms so equipped."

Inclusion of toilets in classrooms was not begun without consideration of costs.

And happily, it is not true that such fixtures are more expensive than the group arrangements. A comparison of costs between the different types was made among two schools we planned recently.

Pleasant View School, near Porterville, California, was analyzed as typical of group toilet planning. It was constructed with state funds under the austerity program of state aid to distressed school districts. Paradise Canyon School at La Canada was analyzed as typical of class-

room toilet planning. Following are some of the findings.

Pleasant View School has 100.98 square feet of toilet space per classroom, under the group plan. Paradise Canyon School has 86.8 square feet of toilet area per classroom, under the adjacent classroom plan—a saving of 14.18 square feet per classroom over the plan following California's recommended minimum for group toilets.

Under the state recommended minimum

For more facts use Inquiry Card, 84CM-32K



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More safety than ever!

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Dodge now offers the safest "Job-Rated" school bus chassis in Dodge history!

Here is smoother power . . . more dependable power for your school bus route. New high-efficiency engines make these new chassis the finest performers ever to carry the Dodge name.

What's more, you get added safety, economy and dependability . . . thanks to more than 50 brand-new features.

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New! Easier handling—Now, even sharper turning! More comfortable steering wheel angle! New, easier-operating worm-and-roller steering gears! Other easy-handling features include wide front tread, cross-steering, short wheelbase.

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and 36 pupils.



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2 models—12,025 and
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and 42 pupils.



MODEL GS-192, NMS-192
GS-192, 14,650 lbs. G.V.W.
NMS-192, 15,500 lbs. G.V.W.
For 48 pupils.



MODEL JS-212
2 models—16,125 and
17,000 lbs. G.V.W. For 54
pupils.



MODEL RS-229
2 models—18,075 and
19,000 lbs. G.V.W. For 60
pupils.

(Continued from page 27)

for fixtures and floor space for group toilets, Paradise Canyon would have used 19 toilet fixtures instead of 34.

According to the engineering estimates, the 15 additional fixtures used at Paradise Canyon cost approximately \$100 each, or a total of \$1,500.

However, when the floor space saved in the total plan—1974 square feet—is multiplied by \$8.39, the actual bid price of classroom area per square foot,

there is an economy of \$1,656.19, which more than offsets cost of added fixtures.

The comparison shows that the classroom toilet plan is approximately 14 percent more economical of space, and the costs involved are about equal.

The general agreement among administrators, teachers, and parents on the value of in-classroom toilets makes it quite apparent that it will be difficult to overrule such planning in the future, where school districts advocate their use.

FORMAL transfer of Triple Cities College at Endicott, New York, to the State University was completed early last fall.

The liberal arts school, known as Harpur College, was established in 1946 as a branch of Syracuse University. Enrollment is 1,000. Present facilities will be used pending completion of a new plant several miles away on a 238-acre campus site contributed by Thomas J. Watson, industrialist.

How One School System Planned Ahead for A Long Period

By JORDAN L. LARSON
Superintendent of Schools, Mt. Vernon, N. Y.

FOR a superintendent of schools to manage adequately his school plant and work within a reasonable budget it is necessary for him to do some long-time planning. It results in sound budgeting as well as in fair expenditure of money allocated for educational purposes.

In Mount Vernon three major programs were outlined for the approval of the board of education, and unanimously approved. We developed and put into practice the following projects which are resulting in steady improvements in all departments:

1. A building maintenance program, with the assistance of Fred E. West, superintendent of buildings and grounds. This was a five-year plan under which all of our buildings were to be painted and all necessary repair work not of an emergency nature would be done. An appropriation of \$200,000 each year was recommended.

2. An equipment program, with the assistance of Alfred R. Gledhill, secretary of the board of education. Equipment such as typewriters, sewing machines, refrigerators, and so on were to be replaced as needed.

3. An evaluation of the educational curriculum, with the assistance of Catharine I. Rhodes, assistant superintendent of schools, and her staff of supervisors. Curriculum study committees are making a thorough review of the textbooks and literature books, and recommending new adoptions.

Under the first project at least three schools were to be completely painted each year. That spreads the cost of this necessary work. During the war years it was impossible to expend money for such purposes or to find painters to do this work. The project involves more than painting alone, as extensive repairs also have to be done in order that the finished job will not have to be disturbed later. Plumbing and heating systems are put in order, plaster that is cracked.

For more facts use Inquiry Card. S&CM-33K



HOW DOES Music PREPARE for Worthy Home Membership?

These days of crisis in national and international life make strong, unified homes more important than ever before. When the family group is happy and congenial, each member is a better citizen... more friendly, more likable, and better able to get along with others... in school, and in the community and the nation.

No other single subject is better suited than music to prepare students for worthy home membership. School administrators can contribute to the happiness of individuals and the strength and stability of the home, in this and future generations, by encouraging students—in all grades—to participate in music.

Worthy of your time and consideration is the 12-page booklet, "Music, and the Basic Objectives of Education." The coupon, below, or a post card request will bring it to you free and without obligation. Send today.



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Gentlemen: Please send me, free of charge, a copy of the new booklet, "Music, and the Basic Objectives of Education."

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Have efficient control and coordination of all activities. Cut the volume of written carried messages—make announcements without routine-disturbing assemblies (to selected classrooms or to the entire school)—take attendance records speedily—have safe, sure centralized supervision of fire drills and emergencies. Have at your fingertips instant two-way intercommunication between any classroom and central office for effective administrative supervision

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Provides dramatically effective teaching materials otherwise unavailable. Radio broadcasts, records and school-produced "live" broadcasts channeled to selected rooms, vitalize instruction in history, current events, geography, languages, music appreciation, speech, drama—enhance the whole range of grade and course requirements. Record music provides rhythm for physical education, cafeteria entertainment, background music for disciplined assemblies and dismissals—these and a host of other valuable functions.

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1. Every desirable program service: Radio, Phonograph, Microphone and intercommunication.
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loose, or otherwise in poor condition is repaired or replaced, and all masonry re-pointed and waterproofed where needed.

All roofs are repaired, and sections replaced with guaranteed roofs. All windows and door frames are properly caulked and a number of window sills replaced. Thermostatic controls and piping are checked and replaced where necessary. Electric cables, switches, and the like are installed or repaired, and program clocks and bell wires are checked and put in good working order. All necessary repairs and adjustments are made to the fire alarm systems. This program also includes the replacement of window shades and floor coverings. Playgrounds, athletic fields, and landscaping are also given constant attention.

Our Own Maintenance School

In working out this plan we found the weaknesses in the management and organization of our personnel and are strengthening the entire maintenance department. We are quite fully mechanized and equipped to handle almost any emergency. Thus far we have not lost an hour of school time. We have set up our own school of instruction to train school custodians. Our standards of requirements are as high as any in the area.

This definite plan has resulted in a fair distribution of improvements, and in a satisfied public. When the buildings were opened after remodeling, members of parent-teacher associations and other citizens expressed their appreciation of the work.

Now that the emergency building maintenance program is practically complete, attention is being turned to needs for the improvement of the interior of the buildings. We have started a three-year program for the replacement of cycloramas and draperies in the auditoriums wherever needed. We appropriated \$9,000 for the first step in this program.

Under the second project to bring the equipment in our schools up to date and to take advantage of the improvements which have been made in this field, we decided on a three-year plan. One-third of the oldest of our typewriters were turned in the first year, and the other two-thirds in the following two years. Thus the problem of repairs and replacements was minimized and good machines were made available for pupils studying this subject. Homemaking equipment, much of which was outmoded, also came under this plan and stoves, refrigerators, and sewing machines were likewise replaced.

New Bookkeeping Machines

To facilitate the work in the business office which such an active program required, the bookkeeping machines were exchanged for newer and better equipment. Among these replacements is a bookkeeping machine which has speeded the preparation of our teacher and civil service payrolls. In a system of this size this is an important item. We painted our business offices with eye-rest green and equipped them with modern light fixtures. A greater efficiency is noticeable.

The third project, which has to do with the professional side of our school plant, is of equal importance to the other two projects which helped make teaching and learning a pleasure. Curriculum committees thoroughly reviewed the courses of study and textbooks in use to strengthen the work of our schools, and to bring the content of subject matter up to date.

A three-year program was planned in which new adoptions were recommended where necessary in arithmetic, social studies, English, and science. The first year the work in arithmetic was evaluated and new texts adopted. In the second year the English and social studies texts were adopted, and now new science books

have been approved. This same program has been in effect in the secondary schools where each department is working to evaluate the courses taught in preparation for living in the world of today.

As these courses are evaluated, textbooks which meet the needs of the students are reviewed, and a final selection made upon the recommendations of the teachers, principals, and supervisors. This plan has resulted in teacher participation in an important aspect of our work. It

has aroused within the teachers a great interest in what is being done, as they have an opportunity to express their opinions before final decisions are made.

We outlined a three-year visual education plan, now practically complete, to equip each of our schools with adequate movie projectors, opaque projectors, lantern slide equipment, and the like. Replacement of these machines will be arranged for under a long-term plan.

We have found in Mount Vernon that

when visitors have an opportunity to see what has been accomplished, they are well pleased with the expenditure of their money and are willing to cooperate with the school authorities in continuing plans which are necessary and desirable. When the taxpayer knows there is a plan for the improvement of the school plant which will eventually modernize and beautify the buildings, making them an asset to the community, he is more willing to support such a school program.

For more facts use Inquiry Card, S&UM-37K



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This is the low-cost, budget-wise way to protect your school building investment. Forestall damage and disintegration to brick, concrete, stone and terra-cotta surfaces, and the eventual destruction of plaster and other interior finishes.

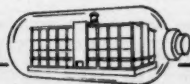
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Check Product Information, page 21. Use the Inquiry Card to request further details from advertisers, and about new products

A STUDENT-run tutorial service is successful in the Hagerstown, Maryland High School. The student tutors, selected by their teachers, organized a Breakfast Club which meets four mornings a week for a half hour before class. They offer their services without charge to any student needing special help. Attendance is never compulsory. As a result, many potential dropouts have remained in school, and several tutors have decided on teaching as a career.

For more facts use Inquiry Card, S&CM-38K



BETTER HEARING TESTS at Lower Cost

The pure-tone audiometer finds over twice as many children with hearing defects as the group-phonograph type, while avoiding erroneous indications of impairment, according to a recent nationwide school hearing test survey, as reported by the American Hearing Society's Committee on Hard of Hearing Children.

Thanks to the new Portable Puretone Screening Audiometer Model 30, developed by Sonotone, the low price of \$199.00 now makes this fine precision instrument available to all. It combines simplicity, dependability and the ruggedness so necessary in school operation.

It covers the frequency range from 250 to 8000 cycles per second and provides for both interrupting and pulsing the test tone by manual keying. Its self-contained batteries provide a full year of service in the average school. A companion instrument, the Model 30AC, is available for plugging into AC power line outlets.

Both models have been accepted by the Council on Physical Medicine of the American Medical Association.

The Models 30 and 30AC can be furnished with slight modification for use in the so-called "Massachusetts Hearing Test," a technique now used in several states to enable schools owning group-phonograph audiometers to utilize the multiple receivers for group pure-tone testing.

Every school interested in testing hearing should send for Vols. I and II of "CONSERVING OUR CHILDREN'S HEARING," which gives extensive data on what other schools are doing, with suggestions on the conduct of a hearing conservation program. Mail coupon below.

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Please send complete details of new portable Audiometer. ☐
Please send "Conserving Our Children's Hearing." ☐

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SM-4

LATEST SCHOOL TRANSPORTATION FACTS

Reprinted with permission from "Bus Transportation," February issue

	No. of Schools Using Buses	No. of Children Carried Daily	No. of Buses	Miles of route (1-Way)	Days in School Year	Cost of Pupil Transport.
Ala.	1,684	246,067	3,727	83,018	176	\$ 4,654,585
Ariz.	245	43,844	...	17,864	165	891,698
Ark.	411	150,159	2,573	54,167	172	4,000,000
Calif.	1,150	325,000	4,400	...	170	6,000,000
Colo.	750	38,317	655	17,317	172	1,778,911
Conn.	169	67,549	765	...	180	744,760
Del.	77*	11,897*	234*	4,230*	180*	420,000*
D. C.	5	122	8	58	180	24,500
Fla.	1,015	159,849	1,822	21,050	180	3,131,275
Ga.	1,652	243,754	3,306	87,134	176	5,889,452
Idaho	200	48,000	934	35,000	174	3,200,000
Ill.	1,437	161,082	4,000	...	185	3,750,000
Ind.	975*	238,969*	5,558*	97,593*	178*	7,918,104*
Iowa	800	115,000	3,023	60,000	179	3,000,000
Kan.	1,461	33,704	2,097	...	172	3,068,355
Ky.	1,515	161,917	2,104	114,233	170	3,574,763
La.	680*	150,589*	2,767*	37,980*	180*	3,461,380*
Me.	496	54,739	1,246	...	180	1,889,817
Md.	669	111,803	1,285	21,499	183	3,218,480
Mass.	351*	79,990*	1,111*	18,663*	175*	130,000*
Mich.	3,750	163,000	3,200	68,480	180	7,000,000
Minn.	658	135,450	2,870	66,992	183	3,500,000
Miss.	1,350	167,565	4,023	70,354	160	4,536,854
Mo.	672*	107,417*	2,270*	45,000*	180*	4,500,000*
Mont. ....	...	19,463	512	7,498	180	634,259
Neb.	1,200	30,000	300	7,000	176	...
Nev. ....	...	4,265	...	2,900	175	...
N. H.	229	22,859	359	10,127	180	1,060,000
N. J.	468*	101,100*	1,700*	24,899*	180*	3,407,517*
N. Mex.	300	34,186	928	39,059	180	2,200,000
N. Y.	3,485	301,765	4,225	142,228	190	14,500,000
N. C.	1,183	405,031	5,772	106,782	180	4,028,640
N. D. ....	...	18,182	...	...	...	1,116,041
Ohio	1,440	366,982	6,185	125,000	180	9,529,167
Okl.	932	112,047	3,132	56,441	177	5,502,988
Oreg.	725	98,700	1,288	29,177	180	3,613,142
Penna.	2,000	346,916	4,691	130,000	180	11,021,980
R. I.	37 D	...	...	...	...	484,455
S. C. ....	...	125,843	2,070	46,274	177	3,900,800
S. D.	213*	17,317*	440*	4,400*	168*	992,903*
Tenn.	2,176	210,346	2,549	62,805	180	4,683,556
Tex.	2,500	320,000	5,700	319,000	175	10,729,369
Utah	40 D	41,501	443	21,460	173	1,001,949
Vt.	461*	8,463*	681*	7,913*	175*	3,000,000*
Va.	1,625	251,077	2,810	68,845	180	4,445,289
Wash.	460 D	146,971	2,007	45,371	180	4,951,732
W. Va.	1,379	169,817	1,406	29,346	175	4,105,663
Wis.	600	80,000	2,550	69,444	180	7,500,000
Wyo.	188 D	15,090	453	10,258	172	1,181,171
TOTAL . 43,813	6,263,704	104,179	2,286,879	177.1	\$180,182,761	

* 1950 figures not reported. Figures for Del., Ind., La., Mass., Mo., N. J., S. D., and W. Va. are most recent available.

D School transportation on District rather than individual basis.

THE extent of transportation for instructional purposes has been growing rapidly in cities. A recent survey of transportation in 1,000 cities of 10,000 or more population shows that these cities are now spending more than \$10,000,000 for transportation. Approximately 165 of these cities indicated that they are spending almost \$400,000 per year for transportation of children to and from various learning centers during the school day. They report a total of more than 1,300,000 pupil-trips for 1949-50. Many cities do not keep separate accounts of these costs or numbers transported. Many cities now have well-planned programs for the use of transportation facilities in the community during the school day. . . . E. Glenn Featherston, senior specialist for pupil transportation, Office of Education, at the AASA convention

LESS than 40 percent of the girls in one Missouri high school eat the seven basic foods needed for good health. Only five percent had excellent diets.

ALMOST 500,000 students received degrees during 1949-50, an increase of nearly 18 percent over the preceding year. This is almost 130 percent more than in the peak year 1939-40, according to the third annual survey of earned degrees recently completed by the Office of Education.

More than three times as many bachelor's degrees were earned by men as by women, according to Robert C. Story, head of the Technical Services Unit, Research and Statistical Service, Office of Education, writing in *Higher Education*.

Table shows the number of degrees conferred, and indicates those received by men and women in 1949-50.

	DEGREES CONFERRED			
	A—Bachelor's and first professional			
	B—Master's and second professional			
	C—Doctor's			
	1948-49	1949-50	%±	Men Women
A	366,634	433,724	18.3	329,819 103,915
B	50,827	58,219	14.5	41,237 16,982
C	5,293	6,633	25.3	5,990 643

Surprise in Minneapolis

MINNEAPOLIS used a stunt on election eve to dramatize a campaign for school support to make permanent a 7.5 mill increased levy. At eight o'clock porch lights were turned on all over the city, bells rang, and whistles and sirens screamed. Result? A two-to-one approval by voters on election day. Minneapolis voters had been voting against school issues during the previous 20 years.

For more facts use Inquiry Card, S&CM-39K

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If a hot water faucet, then actual FUEL WASTED heating 76,000 gallons costs approximately:

\$27.65 if coal (7,900 lbs.)
\$38.00 if oil (633 gals.)
\$50.63 if gas (67,500 cu. ft.)

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Teaching

Fifty Teachers to a Classroom. Prepared by the Committee on Human Resources of the Metropolitan School Study Council. Macmillan Company, Dept. S&CM-200K, 60 Fifth Ave. New York, New York. 44 pages. 65¢.

This is a report on the exciting new guest-teacher plan of education developed by this committee. Teachers and administrators in five school districts worked with the committee on the plan, which utilizes the services of citizens in the community as guest lecturers to school classes. They talk about their work or their skills, hobbies, and travels. Mothers taught home economics classes to cook foreign dishes, a bank executive discussed the principles of banking with an arithmetic class, a baseball player talked about sportmanship.

The pamphlet describes the plan and tells how it can be developed by teacher-citizen cooperation. It also includes reproductions of many of the forms that are used for records and for guest-teacher recruitment.

Public Relations

What Do We Know about Our Schools? National Citizens Commission for the Public Schools, Dept. S&CM-201K, 2 West 45th St. New York 19, New York. 34 pages. Free.

This booklet was designed as a ready-made project for local citizens' committees. It consists of several hundred questions people should ask about their own public schools in order to understand the state of education in their communities and how they can improve it. The questions were prepared by about 200 people from 40 different states who are making determined efforts to better their local schools. They included school superintendents, teachers, school board members, and leaders of citizens' committees.

Community Leadership. American Association of School Administrators, Dept. S&CM-202K, 1201 Sixteenth St. N. W. Washington 6, D. C. 24 pages. 25¢.

This is a practical handbook written to show how the school administrator must function as a community leader, working with other community leaders for school improvement.

Good Schools Don't Just Happen! Prepared by the Office of Education. Available from Science Research Associates, Dept. S&CM-203K, 228 S. Wabash Ave. Chicago 4, Illinois. 22 pages. Single copies free to educators; 1-100 copies, 10¢ each.

This is a primer on what school-community cooperation should aim for in the education of youth. The goals the good school strives for in life adjustment education are enumerated, problems to be solved are listed in question and answer form, and there are suggestions for cooperation between laymen and educators. This pamphlet can be read with profit by all parents, too.

Reference

Patterson's Educational Directory. Revised 1951 edition. Field Enterprises, Inc. Dept. S&CM-204K, 35 E. Wacker Dr. Chicago 1, Illinois. 814 pages. \$10.

This invaluable directory is designed to be the "Who's Who in the Educational Field," and to serve as a buying and selling guide for the billion dollar school market. Hundreds of school systems and thousands of school administrators

have been listed. Also included is a trade index and buyers' guide designed to serve school purchasers of equipment and study materials. In addition, a more easily read format and type have been used in the new directory.

Guidance

VOCATIONAL Guidance Manuals, Inc. Dept. S&CM-K, 45 West 45 St. New York 19, New York, offers three new occupational monographs, each writ-

ten by an expert in the particular field. Each, \$1; discount for quantity orders: **Opportunities in Music.** S&CM-217K. By Sigmund Spaeth. 128 pages. **Opportunities in Photography.** S&CM-218K. By Jacob Deschin. 112 pages. **Opportunities in Television.** S&CM-219K. By Jo Ranson and Richard Pack. 128 pages.

Residence Hall Counseling. By Calvin S. Sifferd. McKnight and McKnight

Publishing Company, Dept. S&CM-210K, Market and Center Sts. Bloomington, Illinois. 256 pages. \$3.

An analysis of the objectives and organization of the good college residence hall counseling program. For supervisors of counseling, residence hall directors, and student counselors.

For Administrators

Working Together for Better Rural Living. Report on the Seventh Mid-

For more facts use Inquiry Card. S&CM-40K

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Name

School

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City State

New Publications

(Continued from page 31)

west Conference on Rural Life and Education. Available from Department of Rural Education, National Education Association, Dept. S&CM-211K, 1201 Sixteenth St. N. W. Washington 6, D. C. 64 pages. 50¢; discount for quantity orders.

A collection of conference addresses and discussion group reports on rural

education and on allied cultural and economic problems in rural life. Also included are papers from the Conference of Superintendents and Principals of Community Schools Serving Rural Pupils.

The Organization and Administration of Summer Public School Educational and Recreational Programs in Districts within Metropolitan Areas of the United States. Research in Ad-

ministration Study No. 2. By Russel L. Lewis. California Association of School Administrators, Dept. S&CM-206K, 35 N. Raymond Ave. Pasadena 1, California. 48 pages. \$1.25; discount for quantity orders.

A useful report on projects throughout the country which have extended school services and facilities through the summer, thereby developing an "all-year" educational program. For administrators, school boards, and recreation workers.

"Schools March On!"



FIRST HAND evidence of efficiency which results from school district reorganization is shown in the March of Time film entitled "Schools March On!" Pictured above is young Stevie Riley, product of the one-room country school in Woodford County, Illinois. Until consolidation took place, Stevie was the only member of the first grade! Film is now available for general use. Address inquiries to March of Time, 369 Lexington Avenue, New York 17, New York.

CHECK LIST OF NEW AUDIO-VISUAL AIDS

Consult the SCHOOL AND COLLEGE MANAGEMENT Product Information Page, 21. Use the postage-free Inquiry Card; indicate key number of item about which you want further details. . . . To buy or rent films write directly to the distributor. Please mention S&CM.

16-mm. Educational Films

Prices subject to change without notice. In some cases rentals vary. Where true, the word "apply" is used. Send to distributor for rates.

Where films are sent free, except for transportation charges, the word "loan" is used.

S&CM-302K—Missouri and Its Natural Resources. 33 min. Color. Loan. Bureau of Mines, Graphic Services Section, Dept. S&CM-302K, 4800 Forbes St. Pittsburgh 13, Pennsylvania.

This is the ninth in the worth-while series of films depicting the wealth of various states. Missouri's importance as a producer and processor of raw materials is shown, with emphasis on its large variety of mineral resources and the diversity of products from its factories. Included also is the history of its transportation system. For high-school and college levels.

For more facts use Inquiry Card. S&CM-45K

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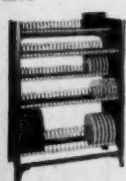


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S&CM-301K—Union at Work. 24 min. Sale—\$60. Rental—\$4. Film Division, Dept. S&CM-301K, CIO Department of Education and Research, 718 Jackson Pl. N. W. Washington 6, D. C.

This is the story of the Textile Workers Union of America, CIO. The theme is union business—the organization and building of a union in one of our basic industries. It was filmed in the mills, in members' homes, in the union halls, and on the picket lines. It is presented by the union in an effort to give all viewers a better understanding of the American labor movement.

S&CM-303K—The Wonderland of Vision. 20 min. Color. Loan. Better Vision Institute Film Library, Dept. S&CM-303K, 13 East 37 St. New York 16, New York.

The film covers the subject of eye care in a treatment suitable for all age levels. The functioning of the various parts of the eye is explained, and an eye examination and subsequent fitting for glasses are pictured. The film also shows the steps involved in the exacting task of making eyeglasses. Many types and styles of spectacles are displayed in a fashion sequence.

S&CM-305K—Miss Dunning Goes to Town. 27 min. Color. Loan. Toni Company, Dept. S&CM-305K, 456 Merchandise Mart, Chicago 54, Illinois.

The story of a young woman who wants a career, but misses many good opportunities in her field of work because of her appearance. Used to demonstrate the importance of good grooming for women. The film emphasizes the proper care of hair and modern hair styles. For high-school girls.

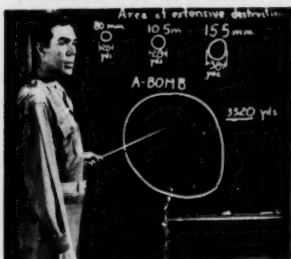
S&CM-306K—Feeling All Right. 30 min. Sale—\$50. Rental—\$4. Communication Materials Center, Dept. S&CM-306K, Columbia University Press, 413 West 117 St. New York 27, New York.

A Negro cast portrays the story of a boy who contracts a social disease and who is cured by a public health agency. At first he uses a quack nostrum for medication, but a lecture by a health educator convinces him that he needs treatment. He learns much more about syphilis at the treatment center, and determines to avoid its consequent tragedies. Although the locale is Mississippi, the problem is nationwide.

S&CM-300K—You Can Beat the A-Bomb. 20 min. Ten-year lease—\$80. McGraw-Hill Book Company, Text-Film Department, Dept. S&CM-300K, 330 West 42 St. New York 18, New York.

This is a valuable teaching tool for any groups that want to learn specific techniques of self-protection in case of atomic attack. In addition to showing what should be done from the moment the warning signal is sounded to the instant of explosion, the film shows how to provide emergency treatment until medical aid is available and how to dispose of contaminated food and clothing. For high-school, college, and adult groups.

A descriptive diagram from the timely film "You Can Beat the A-Bomb," reviewed above



SCHOOL AND COLLEGE MANAGEMENT

S&CM-304K—24 Hours of Progress. 28 min. Sale—\$40. Also available on loan. Oil Industry Information Committee, Dept. S&CM-304K, American Petroleum Institute, 50 West 50 St. New York 20, New York.

A non-technical documentary about oil and its role in the modern world. The oil industry operations depicted are related to everyday living. The work of the men and women who work in the oil industry is also described. The film

emphasizes the significance of oil in the social and economic progress of 150 million Americans.

Filmstrips

JAM Handy Organization, Dept. S&CM-K, School Service Department, 2821 East Grand Blvd. Detroit 11, Michigan, presents ten filmstrips which supplement benchwork courses on tools, equipment, procedures, and methods. Sale —\$4.50 each; complete set of 10, \$39.50.

Hand Tools. S&CM-365K. 140 frames. **Hand and Power Hack-Saws.** S&CM-366K. 73 frames. **Drills and Drilling.** S&CM-367K. 117 frames. **Reaming, Tapping and Threading.** S&CM-368K. 82 frames. **Finishing Rough Castings.** S&CM-369K. 60 frames. **Scraping.** S&CM-370K. 73 frames. **Rivets and Riveting.** S&CM-371K. 84 frames. (Turn page)

For more facts use Inquiry Card, S&CM-47K

INTERNATIONAL SCHOOLMASTER

the school bus with 3 degrees 



New L-183 Schoolmaster (19,500 pounds GVW)—one of the 5 great new models in the Schoolmaster line. Features include: valve-in-head Super Blue Diamond engine; Super-steering; shortest practical turning circle; hypoid gear axle.

1st DEGREE: Master of safety

Pupils ride to and from school in safety and comfort in new International Schoolmasters. These school buses offer heavy-duty engineered stamina in every part to protect against on-the-road failures that might spell danger. They offer safer steering, more positive control and easier maneuverability to help make your safety record the envy of others.

2nd DEGREE: Master of thriftiness

International Schoolmasters can help stretch school bus budgets from one end of a school district to the other. Maintenance costs are down because every Schoolmaster has heavy-duty engineered strength throughout. Operating costs are down because every Schoolmaster is powered by a new, more thrifty valve-in-head engine.

3rd DEGREE: Master of dependability

Bad weather and bad roads don't keep International Schoolmasters from covering their routes. They have heavy-duty engineered ruggedness that helps them maintain schedules under the toughest operating conditions. Your pupils won't have a lot of "tardy" marks on their report cards because of International Schoolmasters.

Have your school bus needs analyzed now, free of charge. Call your nearest International Truck Dealer or Branch. He'll be glad to go over your school bus problems with you. He'll be glad, too, to give you complete information on new International Schoolmasters.

International Harvester Builds McCormick Farm Equipment and Farmall Tractors... Motor Trucks... Industrial Power... Refrigerators and Freezers



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See the new

INTERNATIONAL SCHOOL BUSES

Every model heavy-duty engineered for safety, economy, and dependability

Check Product Information, page 21. Use the Inquiry Card to request further details from advertisers, and about new products

New Audio-Visual Aids

(Continued from page 33)

Layout Tools and Measuring Instruments. S&CM-372K. 96 frames.
Layout Work, Part I. S&CM-373K. 112 frames.
Layout Work, Part II. S&CM-374K. 133 frames.

S&CM-364K—You Can Make Music. 63 frames. Color. Teaching guide in-

cluded. Loan. American Music Conference, Dept. S&CM-364K, 332 S. Michigan Ave. Chicago 4, Illinois.

Tells the story of a small boy and his friends who visit the music department of their school. They learn about musical instruments and become very interested in music. Later they qualify to join the school orchestra. For showings in the music education program or as part of general instruction in elementary grades 2 through 7.

S&CM-362K—The Magic Carpet: Soil. 35 frames. Color. 16-inch, 33-1/3 r.p.m. disc, running 9 minutes, included. Sale—\$12. Hollywood - PanAmerican Films, Dept. S&CM-362K, 5356 La Mirada Ave. Hollywood 27, California.

This is the story of soil, prepared in such a manner that the filmstrip attracts and holds the interest of young people. Original art work depicts the importance of soil and how man battles to use it and to save it.

For more facts use Inquiry Card. S&CM-48K

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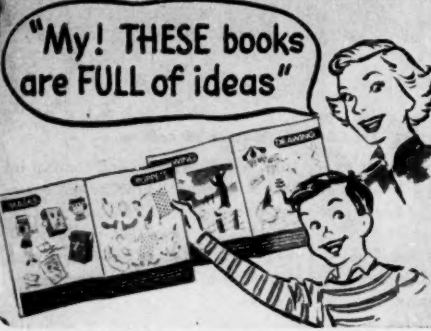
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Dept. SN-22



NEW AUDIO-VISUAL EQUIPMENT

Consult the SCHOOL AND COLLEGE MANAGEMENT Product Information Page, 21. Use the postage-free Inquiry Card; indicate key number of item about which you want further details.

Bulletin Board Wax S&CM-453K

By using the new Bulletin Board Wax you can mount both three-dimensional objects and flat materials on any vertical surface such as bulletin board, blackboard, wall, woodwork, or glass. It makes no holes in the surface and it will hold objects in place indefinitely. It can readily be cleaned off after use.

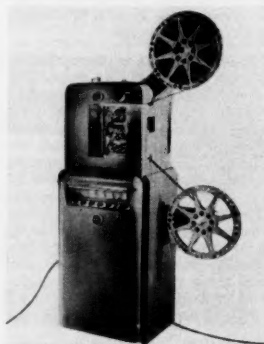
The wax is colorless, odorless, and stainless. It is unaffected by ordinary extremes of temperature. . . . Use the Inquiry Card or write to Lea A-V Service, Dept. S&CM-453K, Albert Lea, Minnesota.



Filmstrip Rewind S&CM-454K

Care and maintenance of filmstrips is simplified when this new power rewind, cleaner and inspector is used. It helps prolong the life of filmstrips by removing dirt, eliminating hand rolling, and avoiding finger marking.

The unit will rewind and clean both sides of a 70-frame filmstrip in 5 seconds, while it is being inspected. No electrical connections are needed. The rewind is available alone or as an accessory to the Standard filmstrip projector. . . . Use the Inquiry Card or write to Standard Projector & Equipment Company, Inc. Dept. S&CM-454K, 205 W. Wacker Dr. Chicago 6, Illinois.

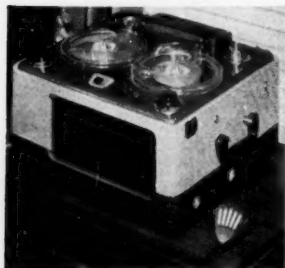


New 16-mm. Projector S&CM-455K

For auditorium and large-group use, the new Eastman 16-mm. projector, Model 25, gives consistently high-quality sound motion pictures. It has been constructed to take its place alongside 35-mm. equipment. Intended for permanent installation, it can be made reasonably portable by disassembly into three parts, each of which has handholds.

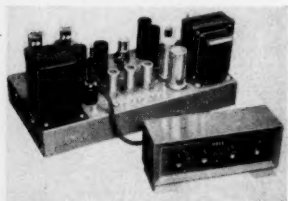
This machine is equipped with a 1,000-watt, 10-hour tungsten lamp, and provides excellent screen illumination. The lens, offered in a choice of focal lengths, gives excellent flatness of field and image resolution. To assure a high level of

durability and quietness, the mechanism is divided into two assemblies driven by separate synchronous motors. Individual motors also drive the blower, take-up, and rewind. Simple controls for the projector are located on a well-lighted panel. . . . Use the Inquiry Card or write to Eastman Kodak Company, Dept. S&CM-455K, Rochester 4, New York.



New Tape Recorder S&CM-451K
Excellent for school use is the popularly priced Web-Cor magnetic tape recorder. It features a new development in tape reels—loop leaders that simply drop over the reel. With these, the machine operates to the end of the reel then stops automatically. There's no danger of the leader slipping from its moorings.

This machine will record at both $3\frac{3}{4}$ and $7\frac{1}{2}$ inches per second. Use of double-track tape at slow speed gives 2 hours of uninterrupted recording without reel turnover. The fast forward and reverse speeds permit a 1,200-foot reel of tape to run through in only 3 minutes. Portable machine comes with microphone in carrying case. . . . Use the Inquiry Card or write to Webster-Chicago Corporation, Dept. S&CM-451K, 5610 Bloomingdale Ave. Chicago 39, Illinois.



High Fidelity Amplifier S&CM-450K
Flexible installation and outstanding realism of sound reproduction from microphone, phonograph, radio, and television are claimed for the Model 2145 Bell Sound Systems high fidelity amplifier. The remote control unit has a selector that permits switching to phonograph, radio, or television set as desired. It provides the means of choosing correct equalization for all types of domestic and foreign recordings. There is one volume control compensated for low-level listening. The separate bass and treble controls have a flat center position with provision for boost and attenuation. The unit has 6 inputs: 3 phono, 1 high impedance microphone, and 2 radio. . . . Use the Inquiry Card or write to Bell Sound Systems, Inc. Dept. S&CM-450K, 1183 Essex Ave. Columbus 3, Ohio.

Folding Screen S&CM-456K
"Convenience" should be the name of the new portable Fast-Fold projection screen. Even the 9 x 12-foot screen may be set up quickly almost anywhere. The surface is wrinkleproof and washable. Its nonglare fabric is designed to produce exceptional uniformity of the projected image when viewed from any angle in classroom or auditorium. The screen is available in 7 sizes, ranging from 43 x 58 inches to 10 $\frac{1}{2}$ x 14 feet. It comes with an aluminum frame in a custom-

made carrying case. . . . Use the Inquiry Card or write to Commercial Picture Equipment, Inc. Dept. S&CM-456K, 1567 W. Homer St. Chicago 22, Illinois.

A SERIES of colored slides and accompanying scripts showing Philadelphia workers in action is being prepared for the city's schools, according to *Occupational Notes*. The first set of pictures will deal with jobs in a department store.

A NUMBER of Iowa high-school students are now learning to read better by going to the movies. The theatre is their own classroom and what they see on the screen are words. For five minutes at a time they see nothing but phrases and sentences which are flashed for a fraction of a second and then disappear, to be rapidly succeeded by another group of words. By the time the film has ended they will have read a complete story.

As the phrases of the story are flashed across the screen, the student is required to read fairly large units of the story at a glance. Each day's story is flashed just a little faster than the last. Within 15 or 20 days, the average student finds that he has doubled or trebled his reading speed. The films he reads are new, produced by the college of education and the extension division of the state University of Iowa, for use on a 16-mm. sound film projector rather than a variable-speed silent unit.

For more facts use Inquiry Card. S&CM-52K

Filmosound . . . school* service and still going strong!

*Recent photo of Mr. Harry Mathews, teacher of Franklin Junior High School, Racine, Wisconsin . . . operating a Bell & Howell Filmosound projector purchased from Photoart Visual Service, Milwaukee, and used continually since 1937.

Modern school officials concerned with making their audio-visual equipment dollars go further, will be interested in the experience of Mr. Harry Mathews, teacher of a Racine, Wisconsin, public school. Mr. Mathews writes:

" . . . we also have a #165481 purchased January 18, 1937 that has run an average of 250,000 feet of film per year and is still operating perfectly."

The model mentioned above is one of the earlier Bell & Howell sound film projectors. Typical of B&H engineered products, it has given more than 1600 hours of flawless, uninterrupted performance. And, with normal care, it can be expected to give its owners many more years of excellent service.

For your own school needs, investigate Bell & Howell Filmosound. Pictures are brilliant and lifelike. Sound is richly natural. Suitable for small classroom or auditorium. And you can depend on Filmosound's superb engineering for most hours of trouble-free performance. Consult your nearby Bell & Howell representative. He is trained to serve you.

You buy for life when you buy . . . **Bell & Howell**
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Single-Case Filmosound

A superb all-in-one unit weighing only 35 $\frac{1}{2}$ pounds. Safe-lock sprockets guard film, make threading easy. Natural, flutterless sound. Perfectly aligned optical system gives finest illumination. For 16mm sound or silent film. Changes from forward to reverse and vice versa at the flick of a switch. Stops for still picture. Built-in 6-inch speaker operates within the case or removed from it. Larger, separate speakers available for single or multiple use.

Guaranteed for life. During life of product, any defects in workmanship or materials will be remedied free (except transportation).

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Please send me without obligation "Learning Unlimited," your helpful booklet on the use of sight-sound movies in modern schools.

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When you select an RCA Sound System for your school, you buy the superior performance features developed through more than 25 years of specialization in the design, manufacture and installation of school sound equipment. You get bonus benefits, too! Built into your RCA School Sound System is every important advance derived from RCA's years of experience in engineering and manufacturing electronic apparatus for motion picture theatres, for radio and television stations, for industrial application and for the needs of the armed forces.

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Yes . . . the purchase of an RCA School Sound System assures your school of modern, high quality apparatus . . . bound to perform at top-

level efficiency for many years because all components are made by RCA and are unit-matched to work together for trouble-free and economical operation.

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There is no ready-made sound system that perfectly suits the needs of all school layouts. Your RCA Sound Products distributor will be glad to make a survey of your school requirements and plan a sound system program for you.

For complete details contact your nearest RCA Sound Products distributor or write Sound Products, Department P-81, Radio Corporation of America, Camden, New Jersey.

Custom, unit-built, studio-type control console. Switches control loudspeakers for up to 120 classrooms or areas. AM and FM radio tuner. Transcription or record player. Emergency paging. Intercommunication facilities (optional).

A black and white photograph of a woman with dark hair, wearing a dark jacket, sitting in a swivel chair and operating a large, complex RCA sound control console. The console is filled with numerous knobs, switches, and dials. The woman is looking intently at the controls. The console is mounted on a dark, sturdy base.

SOUND PRODUCTS
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In Canada: RCA VICTOR Company Limited, Montreal